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EIGHTEENTH ANNUAL REPORT

OF THE

Department of
Mines and Minerals

OF THE

PROVINCE OF ALBERTA

FOR THE

Fiscal Year Ended March 31st
1967

EDMONTON:
PRINTED BY L. S. WALL, Queen's Printer
1967



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To the Honourable J. W. Grant MacEwan,

Lieutenant Governor of the Province of Alberta

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Sir:

I have the honour to submit the Report of the Department of Mines and Minerals for the fiscal year ended March 31st, 1967.

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I have the honour to be, Sir,

Your obedient servant,

A. RUSSELL PATRICK,

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Minister of Mines and Minerals.

Edmonton, May 24, 1967.

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CHIEF OFFICERS
DEPARTMENT OF MINES AND MINERALS
MARCH 31st, 1967

Hon. A. Russell Patrick *Minister*
H. H. Somerville *Deputy Minister*
P. G. Schmidt *Solicitor*
C. E. Dolan *Statistician*
W. E. Shillabeer *Administrative Accountant and
Personnel Officer*

MINERALS DIVISION

J. W. Patrick *Director*
R. A. Seaton *Assistant Director*
D. R. Jordan *Supervisor of Revenue*
W. H. Roy *Supervisor of Reservations,
Permits and Licences*
D. F. Morrison *Supervisor of Leases and Mining
Recorder, Edmonton District*
D. C. MacMillan *Mining Recorder, Calgary District*

MINERAL TAX DIVISION

I. M. Harrington *Superintendent*
N. B. Adam *Assistant Superintendent*
W. McGeachie *Chief Assessor*

MINES DIVISION

J. D. B. Brown *Director*
P. Melson *Assistant Director*

PIPE LINE DIVISION

A. L. Berry *Superintendent*
G. W. B. Bullymore *Assistant Superintendent*

TECHNICAL DIVISION

J. M. Novak *Superintendent*
E. G. Staniforth *Assistant Superintendent*
E. D. Barnard *Supervisor of Records*

CHIEF OFFICERS
DEPARTMENT OF MINES AND PETROLEUM
MARCH 2nd 1967

Hon. A. Rossell Patrick
H. H. Somerville
P. D. Schmidt
C. H. Dolan
W. E. Stubbins

MINERAL DIVISION

I. W. Kuntze
R. A. Eaton

D. R. Johnson
W. H. Roy
D. F. Morrison
D. C. MacMillan
I. M. Hurlston
N. B. Adams
W. McClellan

I. D. B. Brown

P. Morrison

PETROLEUM DIVISION

A. L. Bury
C. W. B. Bullock

TECHNICAL DIVISION

J. M. Koval
E. G. Stachurski

EIGHTEENTH ANNUAL REPORT

of the

Department of Mines and Minerals

HONOURABLE A. RUSSELL PATRICK,
Minister of Mines and Minerals,
Edmonton, Alberta.

Sir:

I have the honour to present the Annual Report of the Department of Mines and Minerals for the fiscal year ended March 31, 1967.

Alberta's oil and gas industry in 1966 continued its growth trend despite a moderate decrease in drilling activity. The decrease in drilling was mainly attributable to the introduction of larger spacing for producing oil wells. New areas of development and the extension of previous discoveries provided the basis for a year of accomplishment.

Crude oil production rose significantly from 184.1 to 203.3 million barrels, an increase of more than 10 per cent. Pentanes plus production increased nearly 1.3 million barrels, from 26 to 27.3 million barrels. Natural gas marketed increased from 842,574,183 Mcf. to 888,822,283 Mcf., while propane production rose from 9.1 to 11.3 million barrels and butane from 6.1 to 7.3 million barrels.

Production of sulphur also increased during the year. Sulphur production in 1966 totalled 1.6 million long tons, up approximately 130,000 long tons from the previous year's total of 1.5 million long tons.

Drilling activity—total number of wells and total footage drilled—decreased from previous highs. Footage drilled totalled 8.2 million feet, down from the 1965 total of 10.4 million feet. Decreases in drilling activity are due mainly to the concentration of drilling in the Rainbow-Zama Lake area where non-winter rig movement has been limited and to a reduction of development drilling as a result of increases in production spacing units.

Of the 888,822,283 Mcf. of natural gas marketed during 1966, 188,719,604 Mcf. was consumed in Alberta. Natural gas consumed outside Alberta totalled 700,102,679 Mcf., of which 341,463,913 Mcf. was exported to the United States.

Reserves of crude oil, natural gas and sulphur registered increases during 1966. Proven reserves of crude oil to the end of December, 1966 totalled 6.76 billion barrels, compared to 6.08 billion barrels to the end of December 1965. Established reserves of natural gas increased to 38.1 trillion cubic feet, while reserves of natural gas liquids decreased

to 1,257 million barrels from the 1965 total of 1,261 million barrels. Established sulphur reserves increased from 99.1 million long tons to 109.7 million long tons at the end of December, 1966.

Major pipe line projects completed during 1966 include the Great Canadian Oil Sands Limited oil transmission line from Fort McMurray to Edmonton. Construction of the 266-mile, 16-inch diameter line was started in September, 1965 and completed in August, 1966.

Hudson's Bay Oil and Gas Company Limited completed its 195-mile 12 $\frac{3}{4}$ inch oil line from the Sundre field to Pincher Creek. Construction began in May, 1966 and the line was completed in October.

Rainbow Pipe Line Company, Ltd. completed three major projects, a 237-mile, 20-inch diameter oil line from the Rainbow Lake field to Nipisi, a 183-mile, 24-inch diameter line from Nipisi to Edmonton and a 59-mile, 20-inch diameter line from Rainbow north to Zama Lake. Construction of the 237-mile project was started in December, 1965, and completed the following June, while the 183-mile line was started in November, 1966, and completed in March. The 59-mile Rainbow-Zama Lake line was started in January, 1967, and completed in March.

Natural gas service was obtained by the town of Mayerthorpe, the villages of Andrew, Sangudo and Thorhild; the hamlets of Rochfort Bridge, Hilda, Schuler, Purple Springs, Villeneuve, Lisburn, Glenevis, Cherhill and Mountain View and the other communities of Vezeau Beach, Valleyview, Osborne Acres, Escarpment and Garden Heights. This increased the total to 277 cities, towns, villages and other communities now served by natural gas in Alberta.

There were six gas processing plants completed during 1966, bringing the total number of plants in the Province to 90. Plants were constructed in the Carstairs, Harmattan-Elkton, Keystone, Paddle River, Pembina and Wintering Hills areas. Expenditure on plant construction during 1966 totalled more than \$3 million. Total investment in plant construction now exceeds \$333 million.

At the last session of the Legislature, amendments to The Right of Entry Arbitration Act and The Surface Reclamation Act made provisions for appeals to the Court. Under the amendments, compensation payable and to whom compensation is payable under The Right of Entry Arbitration Act are subject to court appeal, and under The Surface Reclamation Act, appeal procedure was established to allow appeal regarding expenses incurred in carrying out work ordered by the Council and regarding reclamation certificates.

An amendment to The Quarries Regulation Act enables the Director of Mines to prescribe safety measures for clay and marl operations as well as for sand and gravel operations.

A minor procedural amendment was made to The Mines and Minerals Act, 1962, consequential to an amendment to The Oil

and Gas Conservation Act, which will authorize the Board to issue, amend, suspend or cancel drilling licences. This amendment does not take effect until it has been proclaimed.

During the fiscal year, 1,363 reclamation certificates and 159 orders to perform additional work were issued under The Surface Reclamation Act. Since that Act came into force on June 1, 1963, a total of 5,515 certificates and 790 orders have been issued.

A separate report is issued yearly by the Mines Division and may be obtained from the office of the Mines Division in the Agriculture Building, 9718 - 107 Street, Edmonton, Alberta.

Detailed reports of the other Divisions follow.

All of which is respectfully submitted.

H. H. Somerville,
Deputy Minister

May 18, 1967.

MINERALS DIVISION

Report of the Director of Minerals

J. W. PATRICK

In the eighteenth year of administration by the Department of Mines and Minerals, the many extensive exploration and development programmes of oil and natural gas continued.

Footage drilled for petroleum and natural gas during 1966 was 8,227,186 feet. This was a decrease of 2,205,943 feet from the previous year. The production of crude oil increased to 203,339,443 barrels being an increase of 19,183,774 barrels from 1965. The number of producing wells increased from 12,771 to 13,162 and were capable of maintaining an average daily rate of production of 1,350,000 barrels at December 31, 1966 under good production practice in accordance with sound engineering and economic principles. Because of inadequate markets the average daily oil produced during the year was only 557,094 barrels, an increase of ten per cent from the previous year. There were 1,712 licences issued to drill for oil or gas during 1966 compared with 2,123 licences during the previous year.

Production of coal in Alberta in 1966 increased by 53,326 tons.

The production and value of Alberta's chief minerals for 1966 were crude oil, 203,339,443 barrels valued at \$522,688,279; pentanes plus, 27,360,178 barrels valued at \$71,083,579; coal 3,467,254 tons valued at \$12,067,044; natural gas marketed, 888,822,283 Mcf., valued at \$79,994,005 and salt, 65,156 tons valued at \$2,070,553; and sulphur, 1,676,220 tons valued at \$36,136,106.

Mineral rights, solid, liquid and gaseous, the property of the Crown in right of Alberta, are not sold, but are disposed of by lease, reservation, licence, permit or other agreement for limited periods of time. Revenue is obtained from fees, rentals, bonuses, royalties, sales of leases and other miscellaneous charges. During the fiscal year these sources provided a revenue of \$240,131,870.68, being a decrease of \$8,006,690.36 from the previous year. Sales of leases and reservations in Crown Reserves were held on four occasions in the fiscal year and the revenue from this source decreased by six million dollars.

The Province is divided into two mining districts; the Edmonton district comprises that portion of the Province lying to the north of the north boundary of Township 42 and the balance of the Province lying to the south is contained in the Calgary district.

During the year 3,663 applications for mineral rights were filed at the office of the Mining Recorders in Edmonton and Calgary and at the office of the Department in Edmonton. Many inquiries were made as to the availability of mineral rights, mostly for petroleum and natural gas leases and reservations by personal application and by correspondence.

A tabulation of leases together with statements of business transacted follows.

MINERALS DIVISION LEASES

Type of Lease	Active at April 1, 1966	Issued	Reinstated	Divided	Cancelled	Renewed	Active at March 31, 1967
Petroleum and Natural Gas	29,479	2,885	51	156	3,216	....	29,355
Natural Gas	1,059	22	....	27	5	....	1,103
Petroleum	12	....	....	....	....	....	12
Coal	429	34	....	....	12	10	441
Road Allowance Coal	98	3	....	....	6	1	94
Quarrying	97	6	1	....	5	....	99
Salt	2	....	....	....	....	....	2
Bituminous Sands	80	2	....	....	....	1	81
Oil Sands	31	1	....	....	1	....	31
Iron	7	....	....	....	....	....	7
Sodium Sulphate	2	....	....	....	....	....	2
Miscellaneous	6	1	....	....	....	....	7
TOTAL	31,302	2,954	52	183	3,245	12	31,234

ACREAGE CONTAINED IN ABOVE LEASES

Type of Lease	Active at April 1, 1966	Issued	Reinstated	Cancelled	Renewed	Active at March 31, 1967
Petroleum and Natural Gas	28,968,013	4,482,821	37,758	3,199,933	....	30,288,659
Natural Gas	4,179,345	82,992	....	31,212	....	4,231,125
Petroleum	46,713	....	....	3,359	....	43,354
Coal	158,002	20,221	....	....	4,471	173,752
Quarrying	18,929	1,354	120	513	....	19,890
Salt	1,204	....	....	....	....	1,204
Bituminous Sands	2,562,945	53,325	....	....	3,898	2,612,372
Oil Sands	898,029	6,464	....	76,092	....	828,401
Iron	40,499	....	....	....	....	40,499
Sodium Sulphate	2,136	....	....	....	....	2,136
Miscellaneous	573	160	....	....	....	733
TOTAL	36,876,388	4,647,337	37,878	3,311,109	8,369	38,242,125

STATEMENT OF BUSINESS TRANSACTED, 1966-1967

PETROLEUM AND NATURAL GAS

	Number	Acres
Leases issued	2,885	4,482,821
Leases cancelled and relinquished	3,216	3,199,933
Leases reinstated	51	37,758
Reservations issued	180	5,495,046
Reservations terminated	225	9,582,944
Crown reserve drilling reservations issued	94	727,766
Crown reserve drilling reservations terminated	111	926,759
Permits issued	92	1,441,166
Permits terminated	141	1,992,347
Natural gas licences issued	13	207,321
Natural gas licences terminated	9	130,080
Crown reserve natural gas licences issued	6	91,520
Crown reserve natural gas licences terminated	2	45,920
Natural gas leases issued	22	82,992
Natural gas leases cancelled and relinquished	5	31,212
Fees, rentals, penalties and bonuses collected	\$ 52,240,050.51	
Royalties collected	80,214,493.81	
Crown reserve sales	106,225,023.84	
TOTAL	\$238,679,568.16	

COAL

	Number	Acres
Leases issued	34	20,221
Leases cancelled and relinquished	12	
Road Allowances Leases -		
Leases issued	3	
Leases cancelled and relinquished	6	
Fees and rentals collected	\$ 83,540.35	
Royalties collected	215,939.09	
TOTAL	<u>\$299,479.44</u>	

QUARRYING

	Number	Acres
Leases issued	6	1,354
Leases cancelled and relinquished	5	513
Fees and rentals collected	\$ 31.00	
Royalties collected	83,921.36	
Total	<u>\$ 83,952.36</u>	

MISCELLANEOUS

	Number
Bituminous sands prospecting permits terminated	2
Bituminous sands leases issued	2
Oil sands leases issued	1
Oil sands leases cancelled and relinquished	1
Potash prospecting permits terminated	4
Rock phosphate prospecting permits issued	1
Rock phosphate prospecting permits terminated	24
Sulphur prospecting permits issued	2
Special mineral leases issued	1
Iron prospecting permits issued	7
Quartz -	
Certificates of work issued	4
Placer -	
Renewals issued	1
Roadway sales	2
Well licences issued	1,723
Geophysical licences issued	144
Permits to operate geophysical equipment issued	27
Permits to operate geophysical equipment renewed	60
Fees, rentals, royalties and miscellaneous charges	\$ 1,068,870.72

PETROLEUM AND NATURAL GAS

Leases—During the year 2,885 petroleum and natural gas leases were granted covering 4,482,821 acres and at the close of the fiscal year a total of 29,355 leases were in existence comprising an area of 30,288,661 acres. The Mines and Minerals Act, 1962, which came into force on June 1, 1962, provided that each petroleum and natural gas lease granted following an application made under the Act would be for a term of ten years and at the end of the fiscal year there were 9,076 of these leases comprising 8,480,045 acres. Leases formerly granted were for a term of 21 years and any lease that follows a petroleum and natural gas reservation or Crown reserve drilling reservation that was granted before June 1, 1962 also has a term of 21 years. In the same way if a 21 year lease is transferred only as to a portion or is divided, the new lease for the transferred portion or divided portion also carried the 21 year term.

The revenue received from fees amounted to \$28,940.00. The revenue from lease rentals was \$26,354,534.59 and the revenue from bonuses accepted by the Mining Recorders at sales of petroleum and

natural gas leases by tender amounted to \$2,364,952.94. The revenue from compensatory royalty on petroleum and natural gas leases amounted to \$92,534.74 and from drilling extension penalties \$730,566.09.

Disposal of Crown Reserves—Petroleum and natural gas rights comprised in Crown reserves may be disposed of by order of the Lieutenant Governor in Council and during the year 456 leases, four reservations, 94 Crown reserve drilling reservations and six Crown reserve natural gas licences were purchased and particulars of these Crown reserve purchases are included in this report. Particulars of Crown reserve fractional area leases purchased are also included.

CROWN RESERVES PURCHASED IN FERRIER AREA

Description	Offer Accepted From:	Cash Purchase Price
N.W. $\frac{1}{4}$ 18-39-7-5	Canadian Gridoil Limited	\$ 4,337.60
N. $\frac{1}{2}$ & S.W. $\frac{1}{4}$ 19-39-7-5	Canadian Gridoil Limited	29,812.80
N. $\frac{1}{2}$ 21-39-7-5	Seafort Petroleum Ltd. and Canadian Gridoil Limited	28,900.00
S. $\frac{1}{2}$ 28-39-7-5	Seafort Petroleum Ltd. and Canadian Gridoil Limited	24,100.00
S. $\frac{1}{2}$ 29-39-7-5	Seafort Petroleum Ltd. and Canadian Gridoil Limited	33,600.00
Sec. 13-40-8-5 (Except Natural gas in the Cardium zone)	Amerada Petroleum Corporation and Canadian Superior Oil Ltd.	175,288.00
S. $\frac{1}{2}$ & N.W. $\frac{1}{4}$ 22-40-8-5	Amerada Petroleum Corporation and Canadian Superior Oil Ltd.	134,288.00
W. $\frac{1}{2}$ 23-40-8-5 (Except Natural Gas in the Cardium zone)	Amerada Petroleum Corporation and Canadian Superior Oil Ltd.	150,288.00
Sec. 27-40-8-5 (Except Natural Gas in the Cardium zone)	Amerada Petroleum Corporation and Canadian Superior Oil Ltd.	280,288.00
S.W. $\frac{1}{4}$ 5 & S. $\frac{1}{2}$ & N.W. $\frac{1}{4}$ 6-41-8-5	Amerada Petroleum Corporation and Canadian Superior Oil Ltd.	16,112.00
W. $\frac{1}{2}$ 28-41-8-5 (Except Natural Gas in the Cardium zone)	Amerada Petroleum Corporation and Canadian Superior Oil Ltd.	6,488.00
N. $\frac{1}{2}$ & S.W. $\frac{1}{4}$ 29-41-8-5 Except Natural Gas in the Cardium zone)	Dekalb Petroleum Corporation	14,431.00
E. $\frac{1}{2}$ 1-41-9-5	Amerada Petroleum Corporation and Canadian Superior Oil Ltd.	5,788.00
E. $\frac{1}{2}$ 12-41-9-5	Amerada Petroleum Corporation and Canadian Superior Oil Ltd.	10,222.00
W. $\frac{1}{2}$ 23 & S.W. $\frac{1}{4}$ 26-41-9-5	Amerada Petroleum Corporation and Canadian Superior Oil Ltd.	100,888.00
		<hr/> \$ 1,014,831.40

CROWN RESERVES PURCHASED IN GARRINGTON AREA

Description	Offer Accepted From:	Cash Purchase Price
W. $\frac{1}{2}$ 18-33-2-5 (Except Natural Gas in the Turner Valley zone)	Union Texas of Canada, Ltd.	\$ 12,003.20
		<hr/> \$ 12,003.20

CROWN RESERVES PURCHASED IN LEAFLAND AREA

Description	Offer Accepted From:	Cash Purchase Price
N.W. $\frac{1}{4}$ & S.E. $\frac{1}{4}$ 22-41-5-5	Texaco Exploration Company and Texaco Canada Limited	\$ 8,381.88
		\$ 8,381.88

CROWN RESERVES PURCHASED IN MITSUE AREA

Description	Offer Accepted From:	Cash Purchase Price
E. $\frac{1}{2}$ 4-70-3-5	Sun Oil Company	\$ 67,204.00
E. $\frac{1}{2}$ 16-70-3-5	Imperial Oil Limited	80,777.77
E. $\frac{1}{2}$ 23-72-4-5	The British American Oil Company Limited, Royalite Oil Company, Limited and Great Plains Development Company of Canada, Ltd.	410,132.99
Sec. 25-72-4-5	The British American Oil Company Limited, Royalite Oil Company, Limited and Great Plains Development Company of Canada, Ltd.	130,132.99
Sec. 26-72-4-5	The British American Oil Company Limited, Royalite Oil Company, Limited and Great Plains Development Company of Canada, Ltd.	250,132.99
W. $\frac{1}{2}$ 16-73-4-5	Imperial Oil Limited	48,656.13
E. $\frac{1}{2}$ 17-73-4-5	Imperial Oil Limited	40,612.12
N. $\frac{1}{2}$ & S.E. $\frac{1}{4}$ 20-73-4-5	Imperial Oil Limited	168,838.44
W. $\frac{1}{2}$ 21 & S.W. $\frac{1}{4}$ 28-73-4-5	Imperial Oil Limited	168,938.44
S. $\frac{1}{2}$ 29-73-4-5	Imperial Oil Limited	144,766.83
N. $\frac{1}{2}$ 11 & S. $\frac{1}{2}$ 14-74-5-5	Texaco Exploration Company	86,899.20
N. $\frac{1}{2}$ 19 & S. $\frac{1}{2}$ 30-74-5-5	Canadian Homestead Oils Limited	33,680.00
Sec. 20-74-5-5	Imperial Oil Enterprises Ltd.	70,756.23
N. $\frac{1}{2}$ 24-74-6-5	Imperial Oil Enterprises Ltd.	56,478.46
Sec. 1-69-3-5	Atlantic Richfield Company	99,849.00
E. $\frac{1}{2}$ 11, Sec. 12 & S. $\frac{1}{2}$ 13-69-3-5	Atlantic Richfield Company	241,537.00
N.W. $\frac{1}{4}$ 18 & S.W. $\frac{1}{4}$ 19-72-3-5	Canadian Amco Limited	224,320.00
N.E. $\frac{1}{4}$ 12 & S.E. $\frac{1}{4}$ 13-72-4-5	Western Decalta Petroleum Limited	228,395.00
Sec. 1-74-5-5	Western Decalta Petroleum Limited	15,685.00
Sec. 12-74-5-5	Murphy Oil Company Ltd. and Aztec Oil & Gas Company	\$ 7,155.20
N.E. $\frac{1}{4}$ 22 & S.E. $\frac{1}{4}$ 27-74-6-5	Imperial Oil Enterprises Ltd.	75,333.00
E. $\frac{1}{2}$ 35-72-4-5	Texaco Exploration Company	101,513.68
W. $\frac{1}{2}$ 34-73-4-5	Texaco Exploration Company	56,403.28
E. $\frac{1}{2}$ 35 & Sec. 36-73-6-5 & S. $\frac{1}{2}$ 1-74-6-5	Numac Oil & Gas Ltd. and Whitehall Canadian Oils Ltd.	241,500.00
N. $\frac{1}{2}$ 23-74-6-5	New Continental Oil Company of Canada Limited	102,222.22
S. $\frac{1}{2}$ & N.E. $\frac{1}{4}$ 18-72-3-5	Tenneco Oil & Minerals, Ltd.	176,776.00
W. $\frac{1}{2}$ 35-72-4-5	Texaco Exploration Company and Texaco Canada Limited	17,641.67
N. $\frac{1}{2}$ 2-73-4-5	Western Decalta Petroleum Limited, Pembina Pipe Line Ltd., Ranger Oil (Canada) Limited, Spruce Hills Production Company, Inc. and Yellowknife Bear Mines Limited	12,865.00
E. $\frac{1}{2}$ 3-73-4-5	Texaco Exploration Company and Texaco Canada Limited	17,641.67
		\$ 3,376,844.31

CROWN RESERVES PURCHASED IN NIPISI AREA

Description	Offer Accepted From:	Cash Purchase Price
Sec. 7-79-7-5	Texaco Exploration Company and Texaco Canada Limited	\$ 520,102.44
N. $\frac{1}{2}$ 8-79-7-5	Texaco Exploration Company	202,393.62
S. $\frac{1}{2}$ 17-79-7-5	Texaco Exploration Company and Texaco Canada Limited	202,393.62
S. $\frac{1}{2}$ & N.W. $\frac{1}{4}$ 6-80-7-5	Union Texas of Canada, Ltd.	904,000.00
S.W. $\frac{1}{4}$ 7-80-7-5	Union Texas of Canada, Ltd.	328,110.00
W. $\frac{1}{2}$ 18-80-7-5	Union Texas of Canada, Ltd.	743,360.00
N. $\frac{1}{2}$ 30-80-8-5	Socony Mobil Oil of Canada, Ltd.	569,670.00
N. $\frac{1}{2}$ 31-80-8-5	Texaco Exploration Company	403,411.20
S. $\frac{1}{2}$ 31-80-8-5	Socony Mobil Oil of Canada, Ltd.	416,670.00
S.E. $\frac{1}{4}$ 33-80-8-5	Union Texas of Canada, Ltd.	390,110.00

CROWN RESERVES PURCHASED IN NIPISI AREA (Continued)

Description	Offer Accepted From:	Cash Purchase Price
S. 1/2 34-80-8-5	Union Texas of Canada, Ltd.	\$ 500,110.00
N. 1/2 35-80-8-5	Texaco Exploration Company	48,156.88
S. 1/2 & N.E. 1/4 36-80-8-5	Texaco Exploration Company	38,587.29
E. 1/2 36-80-9-5	Pan American Petroleum Corporation	200,320.00
W. 1/2 5-81-8-5	Atlantic Richfield Company and Imperial Oil Enterprises Ltd.	420,888.00
E. 1/2 6-81-8-5	Atlantic Richfield Company and Imperial Oil Enterprises Ltd.	292,888.00
W. 1/2 7-81-8-5	Atlantic Richfield Company and Imperial Oil Enterprises Ltd.	16,080.00 8,244.00
N.W. 1/4 19-80-9-5	Atlantic Richfield Company	
N. 1/2 23 & S.E. 1/4 26-80-9-5	Atlantic Richfield Company and Imperial Oil Enterprises Ltd.	108,090.00
E. 1/2 1-81-9-5	Pan American Petroleum Corporation	58,286.00
S. 1/2 5-79-7-5	Texaco Exploration Company	112,467.28
S. 1/2 & N.W. 1/4 28-80-9-5	Tenneco Oil & Minerals, Ltd.	111,758.00
E. 1/2 29-80-9-5	Tenneco Oil & Minerals, Ltd.	61,487.00
S.W. 1/4 35-80-9-5	Pan American Petroleum Corporation	37,560.00
N.E. 1/4 31 & N. 1/2 32-78-7-5	Texaco Exploration Company and Texaco Canada Limited	50,716.80
S. 1/2 4-79-7-5	Texaco Exploration Company and Texaco Canada Limited	17,171.20
Secs. 24 & 25 & S. 1/2 36-79-9-5	Hamilton Brothers Canadian Gas Company Ltd.	1,051,121.00
N. 1/2 36-79-9-5 & Sec. 1 & S. 1/2 & N.W. 1/4 12-80-9-5	Hamilton Brothers Canadian Gas Company Ltd.	1,111,121.00
Pt. E. 1/2 21-80-9-5	Tenneco Oil & Minerals, Ltd.	71,558.00
W. 1/2 22-80-9-5	Atlantic Richfield Company	67,539.00
		<hr/> \$ 9,064,370.33

CROWN RESERVES PURCHASED IN PEMBINA AREA

Description	Offer Accepted From:	Cash Purchase Price
S. 1/2 28-47-4-5	Imperial Oil Enterprises Ltd.	\$ 17,655.00
N. 1/2 29-49-5-5	Ashland Oil & Refining Company	8,750.00
Sec. 32-49-5-5	Imperial Oil Limited	32,104.00
W. 1/2 9-47-6-5	Western Decalta Petroleum Limited	26,725.00
S.W. 1/4 24-50-9-5	Socony Mobil Oil of Canada, Ltd.	80,830.00
N. 1/2 31-47-10-5	Wintershall Oil of Canada, Ltd.	46,666.00
N. 1/2 28 & S. 1/2 33-47-4-5	Western Decalta Petroleum Limited and The Petrol Oil & Gas Company, Limited (No Personal Liability)	52,385.00
E. 1/2 9-47-6-5	Western Decalta Petroleum Limited and The Petrol Oil & Gas Company, Limited (No Personal Liability)	26,845.00 7,129.00
Sec. 22-47-6-5	Canadian Homestead Oils Limited	8,098.00
S.W. 1/4 31-47-10-5	Wintershall Oil of Canada Ltd.	9,698.00
E. 1/2 36-47-11-5	Wintershall Oil of Canada Ltd.	8,098.00
S.E. 1/4 1-48-11-5	Wintershall Oil of Canada Ltd.	
		<hr/> \$ 324,983.00

CROWN RESERVES PURCHASED IN RAINBOW AREA

Description	Offer Accepted From:	Cash Purchase Price
S. 1/2 22-109-8-6	Banff Oil Ltd., Socony Mobil Oil of Canada, Ltd. and Aquitaine Company of Canada Ltd.	\$ 2,240,240.00
W. 1/2 23-109-8-6	Canadian Amco Limited and Midwest Oil Corporation	2,668,160.00
S. 1/2 32-108-8-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	960,035.00
E. 1/2 11-109-8-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	576,057.00
E. 1/2 14-109-8-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	224,024.00
E. 1/2 2-109-8-6	Home Oil Company Limited, Colorado Oil and Gas Corporation, Whitehall Canadian Oils Ltd. and Chieftain Development Co. Ltd.	804,621.00
E. 1/2 1-109-8-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	160,322.00
		<hr/> \$ 7,633,459.00

CROWN RESERVES PURCHASED IN RED EARTH AREA

Description	Offer Accepted From:	Cash Purchase Price
E. ½ 6-87-8-5	Whitehall Canadian Oils Ltd.	\$ 15,500.00
W. ½ 5-87-8-5	Whitehall Canadian Oils Ltd.	4,570.00
W. ½ 6-87-8-5	Whitehall Canadian Oils Ltd.	5,570.00
		<hr/>
		\$ 25,640.00

CROWN RESERVES PURCHASED IN SWAN HILLS AREA

Description	Offer Accepted From:	Cash Purchase Price
N. ½ 23-69-11-5	Shell Canada Limited, Dome Petroleum Limited and Provo Gas Producers Limited	\$ 280,886.80
N.W. ¼ 24-69-11-5	Dome Petroleum Limited and Provo Gas Producers Limited	2,223.00
W. ½ 25-69-11-5	Dome Petroleum Limited and Provo Gas Producers Limited	35,587.00
E. ½ 26-69-11-5	Shell Canada Limited, Dome Petroleum Limited and Provo Gas Producers Limited	117,886.80
S.E. ¼ 35 & S.W. ¼ 36-69-11-5	Western Land Services Ltd.	39,360.00
Sec. 16-68-11-5	Canadian Superior Oil Ltd. and Canadian Export Gas & Oil Ltd.	134,124.80
S.W. ¼ 21-68-11-5	Canadian Superior Oil Ltd. and Canadian Export Gas & Oil Ltd.	81,801.60
S. ½ & N.W. ¼ 4-69-11-5	Texaco Exploration Company	53,812.86
E. ½ 12-71-12-5	Chevron Standard Limited	38,667.00
		<hr/>
		\$ 784,349.86

CROWN RESERVES PURCHASED IN UTIKUMA LAKE AREA

Description	Offer Accepted From:	Cash Purchase Price
N.W. ¼ 16-82-9-5	The Atlantic Refining Company	\$ 4,160.00
W. ½ 21-82-9-5	The Atlantic Refining Company	8,320.00
		<hr/>
		\$ 12,480.00

CROWN RESERVES PURCHASED IN VIRGINIA HILLS AREA

Description	Offer Accepted From:	Cash Purchase Price
N. ½ & S.E. ¼ 34-63-13-5	Texaco Exploration Company	\$ 11,141.88
		<hr/>
		\$ 11,141.88

CROWN RESERVES PURCHASED IN WILLESSEN GREEN AREA

Description	Offer Accepted From:	Cash Purchase Price
Sec. 32-41-5-5	Texaco Exploration Company and Texaco Canada Limited	\$ 51,571.28
S. ½ 5-42-5-5	Texaco Exploration Company and Texaco Canada Limited	20,217.66
W. ½ 6-44-8-5	J. M. Huber Corporation	32,320.00
W. ½ 7-44-8-5	Dome Petroleum Limited and Provo Gas Producers Limited	6,571.00
N. ½ 36-43-9-5	J. M. Huber Corporation	3,520.00
E. ½ 1-44-9-5	J. M. Huber Corporation	6,400.00
N. ½ 33-42-8-5	Dome Petroleum Limited and Provo Gas Producers Limited	10,563.00
S. ½ 4-43-8-5	Dome Petroleum Limited and Provo Gas Producers Limited	21,848.00
		<hr/>
		\$ 153,010.94

CROWN RESERVES PURCHASED ELSEWHERE IN ALBERTA

Description	Offer Accepted From:	Cash Purchase Price
N. ½ 33-77-22-4	Union Texas of Canada, Ltd.	\$ 5,180.00
Sec. 16-74-25-4	Denison Mines Limited	18,366.36
Sec. 17-74-25-4	Denison Mines Limited	18,366.37
Sec. 18-74-25-4	Denison Mines Limited	18,366.37
N.E. ¼ 26-43-1-5	Dome Petroleum Limited and Provo Gas Producers Limited	4,111.00
Sec. 30-62-3-5	Texaco Exploration Company	22,515.26
E. ½ 20-36-4-5 (Except Natural Gas in the Lower Mannville zone)	DeKalb Petroleum Corporation	5,344.00
W. ½ 28-36-4-5 (Except Natural Gas in the Lower Mannville zone)	DeKalb Petroleum Corporation	5,344.00
S.E. ¼ 29-36-4-5 (Except Natural Gas in the Lower Mannville zone)	DeKalb Petroleum Corporation	2,672.00
N. ½ 17 & S. ½ 20-37-4-5 (Except Natural Gas in the Lower Mannville zone, the Jurassic zone & the Rundle zone)	DeKalb Petroleum Corporation	10,688.00
W. ½ 36-36-5-5	DeKalb Petroleum Corporation	7,232.00
W. ½ 28 & E. ½ 29-37-5-5	Canadian Gridoil Limited	7,750.40
E. ½ 32 & W. ½ 33-37-5-5	Canadian Gridoil Limited	7,750.40
N. ½ 34-42-8-5	Dome Petroleum Limited and Provo Gas Producers Limited	8,186.00
S. ½ 3-43-8-5	Dome Petroleum Limited and Provo Gas Producers Limited	20,107.00
Sec. 4-85-8-5	Bailey Selburn Oil & Gas Ltd. and Westcoast Production Co. Ltd.	25,640.85
Sec. 31-41-9-5	DeKalb Petroleum Corporation	10,048.00
E. ½ 13-44-9-5	Dome Petroleum Limited and Provo Gas Producers Limited	4,887.00
W. ½ 4-85-9-5	Chevron Standard Limited, Provo Gas Producers Limited, Dome Petroleum Limited and Supertest Investments and Petroleum Limited	54,545.67
E. ½ 5-85-9-5	Chevron Standard Limited, Provo Gas Producers Limited, Dome Petroleum Limited and Supertest Investments and Petroleum Limited	17,643.67
W. ½ 5-85-9-5	Chevron Standard Limited, Provo Gas Producers Limited, Dome Petroleum Limited and Supertest Investments and Petroleum Limited	11,246.67
W. ½ 19-85-9-5	Chevron Standard Limited, Provo Gas Producers Limited, Dome Petroleum Limited and Supertest Investments and Petroleum Limited	121,203.67
E. ½ 30-85-9-5	Chevron Standard Limited, Provo Gas Producers Limited, Dome Petroleum Limited and Supertest Investments and Petroleum Limited	82,828.67
Sec. 36-41-10-5	DeKalb Petroleum Corporation	10,048.00
W. ½ 14-42-10-5	DeKalb Petroleum Corporation	5,024.00
N.W. ¼ 31-56-10-5	Union Texas of Canada, Ltd.	5,010.00
N. ½ 22-80-10-5	Uno-Tex Petroleum Corporation	67,510.00
S. ½ & N.E. ¼ 1-77-11-5	Sun Oil Company	38,880.00
Sec. 11-77-11-5	Sun Oil Company	51,840.00
N. ½ 13 & S. ½ 24-53-12-5	Chevron Standard Limited	19,218.00
Sec. 27-53-12-5	Transalta Minerals Ltd.	28,888.00
Sec. 34-65-13-5	Clark Oil & Refining Corporation	14,400.00
N. ½ 32-58-14-5	Hamilton Brothers Canadian Gas Company Ltd.	4,000.00
S. ½ & N.W. ¼ 20-60-14-5	Texaco Exploration Company	26,572.88
S. ½ 22-60-14-5	Texaco Exploration Company	17,715.26
Sec. 24-61-14-5	Texaco Exploration Company	35,430.46
Sec. 35-57-15-5	Hamilton Brothers Canadian Gas Company Ltd.	6,400.00
E. ½ 19-91-15-5	Texaco Exploration Company	3,545.69
Sec. 33-91-15-5	Texaco Exploration Company	6,649.69
Sec. 2-48-17-5	Texaco Exploration Company	48,742.46
Sec. 29-48-17-5	Texaco Exploration Company	151,219.26
Sec. 18-50-18-5	Texaco Exploration Company	120,486.48
S.E. ¼ 14-55-18-5	Pan American Petroleum Corporation	8,985.00
Sec. 24-50-19-5	National Trust Company, Limited	151,518.00
Sec. 12-59-20-5	Texaco Exploration Company	51,955.26
Sec. 22-59-20-5	Texaco Exploration Company	77,721.66

CROWN RESERVES PURCHASED ELSEWHERE IN ALBERTA (Continued)

Description	Offer Accepted From:	Cash Purchase Price
W. 1/2 19-60-20-5 & E. 1/2 24-60-21-5	Sun Oil Company	\$ 20,480.00
Sec. 14-69-20-5	Sinclair Canada Oil Company	6,577.00
Sec. 2-68-22-5	Supertest Petroleum Corporation, Limited and Teck Corporation Limited	23,046.50
Sec. 11-68-22-5	Western Land Services Ltd.	26,803.20
Sec. 24-93-22-5	Canadian Fina Oil Limited	7,724.80
N. 1/2 16 & S. 1/2 21-56-24-5	Socony Mobil Oil of Canada, Ltd.	80,400.00
N. 1/2 32 & N. 1/2 33-56-24-5	Texaco Canada Limited	19,276.80
W. 1/2 22-65-24-5 (Except Natural Gas in the Viking zone)	Pan American Petroleum Corporation	6,765.00
Sec. 25-56-25-5	Socony Mobil Oil of Canada, Ltd.	32,200.00
Sec. 35-65-27-5	Socony Mobil Oil of Canada, Ltd.	48,350.00
Sec. 14-64-1-6	Champlin Petroleum Company	55,417.00
Sec. 27-66-1-6	Texaco Exploration Company	36,339.28
W. 1/2 20-117-1-6	Bailey Selburn Oil & Gas Ltd.	19,572.44
Sec. 9-118-2-6	Champlin Petroleum Company	21,210.00
N. 1/2 10-118-2-6	Champlin Petroleum Company	11,251.00
Sec. 22-87-3-6	Texaco Exploration Company	16,556.88
Sec. 31-87-3-6	Pan American Petroleum Corporation	7,770.00
Sec. 23-65-4-6	Canadian Superior Oil Ltd.	14,963.00
Sec. 18-66-4-6	Monsanto Oils Ltd. and Monsanto Company	8,150.00
Sec. 35-67-4-6 & E. 1/2 2-68-4-6 (Except Natural Gas in the Wabamun zone)	The Atlantic Refining Company, Sinclair Canada Oil Company, Pan American Petroleum Corporation and Scurry-Rainbow Oil Limited	9,696.00
Sec. 9 & S. 1/2 16-68-4-6 (Except Natural Gas in the Wabamun zone)	The Atlantic Refining Company, Sinclair Canada Oil Company, Pan American Petroleum Corporation and Scurry-Rainbow Oil Limited	48,480.00
N. 1/2 10 & S. 1/2 15-68-4-6 (Except Natural Gas in the Wabamun zone)	The Atlantic Refining Company, Sinclair Canada Oil Company, Pan American Petroleum Corporation and Scurry-Rainbow Oil Limited	19,392.00
N. 1/2 & S.E. 1/4 11-68-4-6	The Atlantic Refining Company, Sinclair Canada Oil Company, Pan American Petroleum Corporation and Scurry-Rainbow Oil Limited	12,120.00
S. 1/2 & N.E. 1/4 14-68-4-6	The Atlantic Refining Company, Sinclair Canada Oil Company, Pan American Petroleum Corporation and Scurry-Rainbow Oil Limited	4,848.00
S. 1/2 & N.E. 1/4 17-69-5-6	Monsanto Oils Ltd. and Monsanto Company	33,710.00
W. 1/2 26 & E. 1/2 27-87-5-6	Bailey Selburn Oil & Gas Ltd.	64,020.40
N. 1/2 25-117-6-6	Champlin Petroleum Company	42,007.00
W. 1/2 18-118-6-6	Skelly Oil Company	27,203.20
Sec. 6-106-7-6	Imperial Oil Enterprises Ltd.	64,888.37
Sec. 7-106-7-6	Home Oil Company Limited and Chieftain Development Co. Ltd.	64,440.00
W. 1/2 27-121-7-6	Skelly Oil Company	25,603.20
Sec. 12-106-8-6	Banff Oil Ltd. and Aquitaine Company of Canada Ltd.	57,657.57
W. 1/2 30-122-8-6	Bailey Selburn Oil & Gas Ltd.	9,621.22
E. 1/2 5-65-14-4	Hamilton Brothers Canadian Gas Company Ltd.	25,510.00
E. 1/2 9-65-14-4	Hamilton Brothers Canadian Gas Company Ltd.	25,510.00
N.W. 1/4 11-67-19-4	Mobil Oil Canada, Ltd.	8,000.00
N.E. 1/4 26-27-1-5 (Except Natural Gas in the Elkton zone and the Wabamun zone)	Mobil Oil Canada, Ltd.	8,000.00
E. 1/2 36-27-1-5 (Except Natural Gas in the Elkton zone and the Wabamun zone)	Mobil Oil Canada, Ltd.	16,000.00
E. 1/2 12-33-1-5	Kerr-McGee Corporation	5,472.00
Sec. 12-44-1-5	Crown Trust Company	10,813.00
Sec. 2-27-4-5	Supertest Investments and Petroleum Limited, Altana Exploration Company, Teck Corporation Limited, Laurence Oil Co. Ltd. and Numac Oil & Gas Ltd.	16,243.48

CROWN RESERVES PURCHASED ELSEWHERE IN ALBERTA (Continued)

Description	Offer Accepted From:	Cash Purchase Price
Sec. 20-27-4-5	Supertest Investments and Petroleum Limited, Altana Exploration Company and Teck Corporation Limited	\$ 10,390.48
Sec. 6-28-4-5	Texaco Exploration Company	8,486.48
Sec. 22-28-5-5	Texaco Exploration Company	10,169.69
E. ½ 24-33-1-5	Kerr-McGee Corporation	5,472.00
N.W. ¼ 8 & S.W. ¼ 17-75-6-5	Murphy Oil Company Ltd. and Aztec Oil & Gas Company	14,041.60
N. ½ 15-76-7-5	Union Texas of Canada, Ltd.	20,600.00
S.W. ¼ 19-56-8-5 (Except Natural Gas in the Nordegg zone and the Pekisko formation)	Tenneco Oil & Minerals, Ltd.	5,689.00
S.W. ¼ 31-56-8-5 (Except Natural Gas in the Nordegg zone and the Pekisko formation)	Tenneco Oil & Minerals, Ltd.	6,489.00
Sec. 20-51-9-5	Chevron Standard Limited	10,341.00
W. ½ 30-51-9-5	Chevron Standard Limited	4,876.00
N.E. ¼ 36-56-9-5 (Except Natural Gas in the Nordegg zone and the Pekisko formation)	Tenneco Oil & Minerals, Ltd.	8,889.00
E. ½ 25-51-10-5	Chevron Standard Limited	4,876.00
W. ½ 33-68-11-5	Canadian Superior Oil Ltd. and Canadian Export Gas & Oil Ltd.	12,160.00
N. ½ 23-52-12-5	Pan American Petroleum Corporation	16,676.00
S. ½ & N.E. ¼ 26-53-12-5	Imperial Oil Enterprises Ltd.	14,963.00
S. ½ 7-54-12-5	Imperial Oil Enterprises Ltd.	37,232.00
N. ½ 20-54-12-5	Denison Mines Limited	106,099.10
S. ½ 29-54-12-5	Denison Mines Limited	106,099.10
Sec. 19-61-13-5	Frontier Oil & Gas Ltd.	43,520.00
N. ½ 13 & S. ½ 24-63-13-5	Texaco Exploration Company	22,566.49
S.E. ¼ 26-63-13-5	Roger Hector Belzil	7,365.00
W. ½ 35-63-13-5	Chevron Standard Limited	17,913.00
N. ½ 36-63-13-5	Chevron Standard Limited	18,572.00
E. ½ 7-59-14-5 (Except Natural Gas in the Wood- bend Reef zone)	Hamilton Brothers Canadian Gas Company Ltd.	23,520.00
S. ½ 21-60-14-5	Frontier Oil & Gas Ltd.	32,490.00
Sec. 28-62-14-5	Altana Exploration Company	11,500.00
N. ½ 32-62-14-5	Altana Exploration Company	5,700.00
Sec. 8-59-15-5 (Except Natural Gas in the Wood- bend Reef zone)	Hamilton Brothers Canadian Gas Company Ltd.	40,970.00
N. ½ 12 & S. ½ 13-53-16-5	Champlin Petroleum Company	7,681.00
E. ½ 9 & W. ½ 10-55-17-5	Frontier Oil & Gas Ltd.	27,200.00
Sec. 7-59-19-5	Texaco Exploration Company	65,715.28
W. ½ 6-56-21-5	Western Decalta Petroleum Limited & Camerina Petroleum Corporation	16,594.00
W. ½ 7-56-21-5	Western Decalta Petroleum Limited & Camerina Petroleum Corporation	33,685.00
W. ½ 16-56-21-5	Imperial Oil Enterprises Ltd.	32,475.00
E. ½ 21-56-21-5	Imperial Oil Enterprises Ltd.	24,376.00
E. ½ 28-56-21-5	Western Decalta Petroleum Limited & Camerina Petroleum Corporation	33,685.00
N. ½ 17-119-21-5	Western Decalta Petroleum Limited, H. W. Bass & Sons, Inc., Camerina Petroleum Corporation, Bass Explorations, Inc., Ranger Oil (Canada) Limited, Canadian Homestead Oils Limited and Spruce Hills Production Company, Inc.	179,385.00
W. ½ 21-125-21-5	Texaco Exploration Company & Texaco Canada Limited	22,947.28
W. ½ 28 & E. ½ 29-125-21-5	Mobil Oil Canada, Ltd.	46,841.60
Sec. 24-57-22-5	Frontier Oil & Gas Ltd.	40,100.00
N. ½ 31-125-22-5 & S. ½ 6-126-22-5	Mobil Oil Canada, Ltd.	46,841.60
Frac. Sec. 19-125-23-5	Chieftain Development Co. Ltd.	24,000.00
Sec. 22-125-23-5	Hudson's Bay Oil and Gas Company Limited	16,242.40
Frac. Sec. 30-126-23-5	Tenneco Oil & Minerals, Ltd.	32,210.00

CROWN RESERVES PURCHASED ELSEWHERE IN ALBERTA (Continued)

Description	Offer Accepted From:	Cash Purchase Price
W. 1/2 30-117-3-6	Dome Petroleum Limited & Provo Gas Producers Limited	\$ 101,444.00
E. 1/2 8-123-3-6	Mobil Oil Canada, Ltd.	21,600.00
N. 1/2 18-123-3-6	Mobil Oil Canada, Ltd.	21,600.00
N. 1/2 33-109-4-6	Mobil Oil Canada, Ltd.	27,200.00
N. 1/2 34-109-4-6	Mobil Oil Canada, Ltd.	27,200.00
W. 1/2 29-112-4-6	Atlantic Richfield Company	163,333.00
N. 1/2 & S.W. 1/4 32-112-4-6	Atlantic Richfield Company	617,777.00
W. 1/2 7-117-4-6	Hamilton Brothers Canadian Gas Company Ltd.	1,362,870.00
S. 1/2 12-117-4-6	Len Johnson	80,555.50
W. 1/2 18-117-4-6	Chevron Standard Limited	333,271.00
W. 1/2 7-118-4-6	Chieftain Development Co. Ltd.	36,200.00
E. 1/2 2-123-4-6	Texaco Exploration Company and Texaco Canada Limited	25,654.40
S. 1/2 8-126-4-6	Mobil Oil Canada, Ltd.	38,000.00
W. 1/2 1-120-5-6	Banff Oil Ltd. & Aquitaine Company of Canada Ltd.	22,424.00
W. 1/2 25-121-5-6	Banff Oil Ltd. & Aquitaine Company of Canada Ltd.	40,040.00
N. 1/2 31-108-6-6 & S. 1/2 6-109-6-6	J. M. Huber Corporation, Aztec Oil & Gas Ltd., Amax Petroleum Corporation and Midwest Oil Corporation	136,313.60
N. 1/2 32-108-6-6 & S. 1/2 5-109-6-6	Union Texas of Canada, Ltd., J. Ray McDermott & Co., Inc. and General Crude Oil Company	100,672.00
N. 1/2 33-108-6-6 & S. 1/2 4-109-6-6	Canadian Superior Oil Ltd., French Petroleum Company of Canada, Union Oil Company of Canada Limited, Sun Oil Company and Amerada Petroleum Corporation	183,383.00
N.W. 1/4 26, N.E. 1/4 27, S.E. 1/4 34 & S.W. 1/4 35-117-6-6	Mobil Oil Canada, Ltd.	220,800.00
W. 1/2 4-118-6-6	Tenneco Oil & Minerals, Ltd., Teck Corporation Limited and J. M. Huber Corporation	44,929.00
W. 1/2 19-120-6-6	Banff Oil Ltd. and Aquitaine Company of Canada Ltd.	22,424.00
W. 1/2 31-122-6-6	Mobil Oil Canada, Ltd.	38,000.00
N. 1/2 21-108-7-6	Bailey Selburn Oil & Gas Ltd.	1,160,499.20
W. 1/2 27-108-7-6	Mobil Oil Canada, Ltd.	480,100.00
Sec. 36-108-7-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	192,076.00
N. 1/2 7-109-7-6	Mobil Oil Canada, Ltd.	1,021,000.00
S. 1/2 8-109-7-6	Mobil Oil Canada, Ltd.	970,100.00
W. 1/2 19-121-7-6	Chieftain Development Co. Ltd.	18,560.00
E. 1/2 30-108-8-6	Banff Oil Ltd. and Aquitaine Company of Canada Ltd.	704,088.00
N. 1/2 26-106-9-6	Imperial Oil Enterprises Ltd.	75,666.00
N. 1/2 6-56-3-5	Canadian Industrial Gas & Oil Ltd.	3,552.00
E. 1/2 7-56-3-5	Montreal Trust Company	19,520.00
W. 1/2 21-46-4-5	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	22,722.20
N. 1/2 1 & S. 1/2 12-56-4-5	Canadian Industrial Gas & Oil Ltd.	7,104.00
N. E. 1/4 & S.W. 1/4 23-56-4-5	Ashland Oil & Refining Company	17,139.20
E. 1/2 5-78-4-5	Montreal Trust Company	22,400.00
S. 1/2, N.W. 1/4 & L.S.'s 9, 10 & 15-16-23-5-5	Monsanto Oils Ltd. and Monsanto Company	9,690.00
Sec. 32-23-5-5	Canadian Pacific Oil and Gas Limited	17,280.00
S.W. 1/4 & L.S.'s 2 & 7-4-24-5-5	Canadian Pacific Oil and Gas Limited	37,680.00
W. 1/2 17-41-5-5	Texaco Exploration Company and Texaco Canada Limited	16,345.68
E. 1/2 28-41-5-5	Texaco Exploration Company and Texaco Canada Limited	16,345.68
W. 1/2 28-41-5-5	Texaco Exploration Company and Texaco Canada Limited	32,691.28
N.W. 1/4 17 & S.W. 1/4 20-56-5-5	Montreal Trust Company	22,400.00
S. 1/2 & N.E. 1/4 18-56-5-5	Samedan Oil of Canada, Inc.	5,817.60
Sec. 23-56-5-5	Canadian Superior Oil Ltd., Ashland Oil & Refining Company and Ted Weiner	49,920.00
Sec. 26-56-5-5	Canadian Superior Oil Ltd., Ashland Oil & Refining Company and Ted Weiner	49,920.00
N.W. 1/4 & S.E. 1/4 10-58-6-5	Banff Oil Ltd. and Aquitaine Company of Canada Ltd.	20,166.60
W. 1/2 36-33-7-5	Boswell Minerals Ltd.	3,200.00
N. 1/2 23-58-7-5	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	22,720.00

CROWN RESERVES PURCHASED ELSEWHERE IN ALBERTA (Continued)

Description	Offer Accepted From:	Cash Purchase Price
S. 1/2 21-59-7-5	Montreal Trust Company	\$ 22,400.00
S.W. 1/4 17 & S. 1/2 & N.W. 1/4 18-81-9-5	Atlantic Richfield Company and Imperial Oil Enterprises Ltd.	145,398.00
N. 1/2 & S.E. 1/4 13-81-10-5	Atlantic Richfield Company and Imperial Oil Enterprises Ltd.	164,278.00
W. 1/2 29-66-11-5	Montreal Trust Company	20,480.00
E. 1/2 28-56-12-5	Montreal Trust Company	21,440.00
W. 1/2 36-56-12-5	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	22,722.20
Sec. 19-54-15-5	Pan American Petroleum Corporation	10,180.00
Sec. 9-59-15-5 (Except Natural Gas in the Wood-bend Reef zone)	Montreal Trust Company	39,680.00
W. 1/2 10-73-15-5	Imperial Oil Enterprises Ltd. and Imperial Oil Limited	33,211.00
Sec. 35-58-16-5	Pan American Petroleum Corporation, Hudson's Bay Oil and Gas Company Limited and Canadian Fina Oil Limited	9,728.00
N. 1/2 15 & S. 1/2 22-60-16-5	Canadian Pacific Oil and Gas Limited	30,080.00
N. 1/2 13-63-16-5	DeKalb Petroleum Corporation	5,590.40
E. 1/2 24-63-16-5	DeKalb Petroleum Corporation	5,590.40
W. 1/2 24-63-16-5	DeKalb Petroleum Corporation	5,590.40
E. 1/2 24-74-16-5	Montreal Trust Company	19,520.00
Sec. 33-54-18-5	Hudson's Bay Oil and Gas Company Limited	32,176.75
W. 1/2 18-74-18-5	Montreal Trust Company	19,520.00
W. 1/2 15 & E. 1/2 16-126-18-5	Tenneco Oil & Minerals, Ltd.	44,980.00
E. 1/2 21 & W. 1/2 22-126-18-5	Discovery Minerals Ltd.	51,513.23
S. 1/2 21-116-20-5	Guaranty Trust Company of Canada	91,305.60
S. 1/2 6-78-21-5	Montreal Trust Company	21,440.00
Sec. 18-119-21-5	Guaranty Trust Company of Canada	482,385.00
Sec. 5-64-22-5	Triad Oil Co. Ltd. and Devon-Palmer Oils Ltd. (No Personal Liability)	38,419.24
N. 1/2 17-64-22-5	Triad Oil Co. Ltd. and Devon-Palmer Oils Ltd. (No Personal Liability)	19,209.64
S. 1/2 14-78-22-5	Montreal Trust Company	22,400.00
Sec. 20-117-22-5	Mobil Oil Canada, Ltd.	103,100.00
Sec. 3-119-22-5	Sinclair Canada Oil Company, Skelly Oil Company and Sunray DX Oil Company	99,833.60
Sec. 36-63-23-5	Triad Oil Co. Ltd. and Devon-Palmer Oils Ltd. (No Personal Liability)	38,419.24
E. 1/2 21-78-23-5	Montreal Trust Company	20,480.00
Frac. Sec. 18-126-23-5	Chieftain Development Co. Ltd., Delhi Australian Petroleum Ltd. and Colorado Oil and Gas Corporation	24,566.00
N. 1/2 34-68-3-6 & S. 1/2 & N.W. 1/4 3-69-3-6	Atlantic Richfield Company	12,609.00
N.W. 1/4 18 & S.W. 1/4 19-117-3-6	DeKalb Petroleum Corporation, Dome Petroleum Limited and Provo Gas Producers Limited	795,075.00
S. 1/2 & N.W. 1/4 16-116-4-6	Montreal Trust Company	1,857,615.00
E. 1/2 28-116-4-6	Montreal Trust Company	800,015.00
W. 1/2 28-116-4-6	Montreal Trust Company	1,440,115.00
E. 1/2 31-116-4-6	Canada-Cities Service Petroleum Corporation	515,003.90
W. 1/2 32-116-4-6	Montreal Trust Company	1,648,015.00
E. 1/2 7-117-4-6	Montreal Trust Company	1,155,215.00
N.E. 1/4 13 & S.E. 1/4 24-117-4-6	DeKalb Petroleum Corporation, Dome Petroleum Limited and Provo Gas Producers Limited	795,075.00
N. 1/2 6-118-4-6	Canada-Cities Service Petroleum Corporation	515,003.90
S. 1/2 6-118-4-6	Canada-Cities Service Petroleum Corporation	515,003.90
W. 1/2 33-119-4-6	Gothard Minerals Ltd.	80,897.36
S. 1/2 16-120-4-6	Chieftain Development Co. Ltd., Blue Crown Petroleum Ltd. and Home Oil Company Limited	80,400.00
E. 1/2 12-122-4-6	Sinclair Canada Oil Company, Skelly Oil Company and Sunray DX Oil Company	49,596.80
S. 1/2 2-110-5-6	J. M. Huber Corporation	164,360.00
S.E. 1/4 25-116-5-6	Montreal Trust Company	211,215.00
N. 1/2 9-117-5-6	Canadian Kewanee Limited, Terrebonne Petroleum Ltd. and Canadian Industrial Gas & Oil Ltd.	526,116.00
S. 1/2 9-117-5-6	Montreal Trust Company	1,616,015.00
S. 1/2 10-117-5-6	Montreal Trust Company	2,400,015.00
S. 1/2 & N.E. 1/4 12-117-5-6	Montreal Trust Company	2,592,015.00
E. 1/2 13-117-5-6	Montreal Trust Company	132,495.00
N. 1/2 34-117-5-6	Montreal Trust Company	1,158,415.00

CROWN RESERVES PURCHASED ELSEWHERE IN ALBERTA (Continued)

Description	Offer Accepted From:	Cash Purchase Price
W. ½ 24-119-5-6	Chevron Standard Limited	\$ 104,764.53
N. ½ 14-108-6-6	Tenneco Oil & Minerals, Ltd., Bass Explorations, Inc., Teck Corporation Limited and Canadian Industrial Gas & Oil Ltd.	169,120.00
S. ½ 22-108-6-6	Tenneco Oil & Minerals, Ltd., Bass Explorations, Teck Corporation Limited and Canadian Industrial Gas & Oil Ltd.	169,380.00
W. ½ 23-108-6-6	Canadian Superior Oil Ltd., Amerada Petroleum Corporation, Sun Oil Company Limited and Union Oil Company of Canada Limited	101,000.00
S.W. ¼ 7-118-6-6 & S.E. ¼ 12-118-7-6	Chevron Standard Limited	384,561.00
S. ½ 16-123-6-6	Chieftain Development Co. Ltd., Delhi Australian Petroleum Ltd. and Colorado Oil and Gas Corporation	38,730.00
Sec. 28-106-7-6	Canadian Pacific Oil and Gas Limited	94,080.00
W. ½ 7-107-7-6	Canadian Homestead Oils Limited	81,100.00
W. ½ 30-107-7-6	Banff Oil Ltd. and Aquitaine Company of Canada Ltd.	48,966.60
N.E. ¼ 34-109-7-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	321,312.12
N. ½ 35-109-7-6	Imperial Oil Enterprises Ltd. and Imperial Oil Limited	1,701,465.00
N. ½ 36-109-7-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	448,320.00
W. ½ 6-110-7-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	161,666.60
W. ½ 7-110-7-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	387,844.40
W. ½ 19-110-7-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	544,444.40
E. ½ 35-118-7-6	Sinclair Canada Oil Company, Skelly Oil Company and Sunray DX Oil Company	49,600.00
W. ½ 36-118-7-6	Chieftain Development Co. Ltd., Delhi Australian Petroleum Ltd. and Colorado Oil and Gas Corporation	59,860.00
E. ½ 1-107-8-6	Canadian Homestead Oils Limited	51,100.00
E. ½ 12-107-8-6	Canadian Homestead Oils Limited	51,100.00
N. ½ 17-107-8-6	New Continental Oil Company of Canada Limited	37,232.00
S. ½ 18-107-8-6	Banff Oil Ltd. and Aquitaine Company of Canada Ltd.	161,922.20
E. ½ 25-107-8-6	Banff Oil Ltd. and Aquitaine Company of Canada Ltd.	80,966.60
Sec. 7-110-8-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	160,640.00
W. ½ 18-110-8-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	80,320.00
E. ½ 24-110-8-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	640,320.00
E. ½ 25-110-8-6	Banff Oil Ltd. and Aquitaine Company of Canada Ltd.	102,444.40
E. ½ 28-107-9-6	Home Oil Company Limited, Colorado Oil and Gas Corporation, Whitehall Canadian Oils Ltd. and Chieftain Development Co. Ltd.	103,211.00
N. ½ 36-107-9-6	Banff Oil Ltd. and Aquitaine Company of Canada Ltd.	48,966.60
N. ½ & S.E. ¼ 34-123-9-6	Archie Edwards	24,935.93
S. ½ 3-124-9-6	Bailey Selburn Oil & Gas Ltd.	16,560.00
W. ½ 18-99-10-6 & E. ½ 13-99-11-6	Discovery Minerals Ltd.	44,816.00
S.W. ¼ 36-107-10-6	Ranger Oil (Canada) Limited	255,331.98
Sec. 32-97-11-6	Pembina Pipe Line Ltd.	149,120.00
W. ½ 31-110-11-6	Bailey Selburn Oil & Gas Ltd.	50,062.30
N.W. ¼ 36-33-1-5	Kerr-McGee Corporation	3,616.00
E. ½ 12-34-1-5	Kerr-McGee Corporation	7,232.00
W. ½ 12-34-1-5	The Royal Trust Company	36,419.00
W. ½ 16-26-2-5	Chevron Standard Limited	41,243.00
S. ½ 2-69-3-5	Home Oil Company Limited, Atlantic Richfield Company, Kern County Land Company and Alminex Limited	12,500.00
Sec. 19-37-4-5 (Except Natural Gas in the Lower Mannville zone, the Jurassic zone and the Rundle zone)	Mobil Oil Canada, Ltd.	6,918.40
E. ½ 19-77-4-5	The Royal Trust Company	37,273.00
S. ½ 31-77-4-5	The Royal Trust Company	36,415.00
W. ½ 21-78-7-5	Atlantic Richfield Company	10,839.00
S. ½ 23-81-10-5	Atlantic Richfield Company	22,488.00
S.W. ¼ 24-81-10-5	Atlantic Richfield Company	36,128.00
Sec. 32-67-11-5	Devon-Palmer Oils Ltd. (No Personal Liability)	22,406.40

CROWN RESERVES PURCHASED ELSEWHERE IN ALBERTA (Continued)

Description	Offer Accepted From:	Cash Purchase Price
Sec. 34-54-18-5	Hudson's Bay Oil and Gas Company Limited	\$ 64,200.00
W. 1/2 1-61-19-5	Chevron Standard Limited	17,284.00
Sec. 17-63-21-5	Texaco Exploration Company	53,459.27
Sec. 18-63-21-5	Texaco Exploration Company	53,459.27
Sec. 21-63-21-5	Texaco Exploration Company	53,459.27
N. 1/2 35-65-21-5	Hunt Oil Company	8,460.80
S. 1/2 1-53-23-5	The British American Oil Company Limited, Mobil Oil Canada, Ltd. and Triad Oil Co. Ltd.	35,099.99
S. 1/2 30-64-23-5	Mobil Oil Canada, Ltd. and Pan American Petroleum Corporation	18,410.00
Sec. 2-65-23-5	Chevron Standard Limited	10,246.00
S. 1/2 23-106-3-6	Western Decalta Petroleum Limited	3,723.00
S.W. 1/4 18-117-3-6 & S.E. 1/4 13-117-4-6	Dekalb Petroleum Corporation, Dome Petroleum Limited and Provo Gas Producers Limited	404,000.00
N.W. 1/4 19-117-3-6	Joe Phillips Limited	160,011.00
W. 1/2 6-116-4-6	Chevron Standard Limited	385,127.00
N. 1/2 9-116-4-6	Chevron Standard Limited	1,141,127.00
S. 1/2 9-116-4-6	Texaco Exploration Company	1,328,563.28
N.E. 1/4 24-117-4-6	Dome Petroleum Limited and Provo Gas Producers Limited	206,568.00
E. 1/2 25-117-4-6	Dome Petroleum Limited and Provo Gas Producers Limited	808,112.00
W. 1/2 30-117-4-6	Chevron Standard Limited	703,333.00
E. 1/2 9-118-4-6	The Royal Trust Company	162,841.00
W. 1/2 10-118-4-6	The Royal Trust Company	1,501,215.00
W. 1/2 15-118-4-6	The Royal Trust Company	1,501,215.00
E. 1/2 16-118-4-6	The Royal Trust Company	1,106,070.00
W. 1/2 18-118-4-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Alcon Petroleums Ltd.	80,322.00
S. 1/2 12-120-4-6	Dekalb Petroleum Corporation	160,031.00
W. 1/2 29-121-4-6	Imperial Oil Enterprises Ltd.	16,444.44
W. 1/2 32-121-4-6	Amerada Petroleum Corporation and Union Oil Company of Canada Limited	20,333.00
S. 1/2 & N.E. 1/4 23-105-5-6	Laurence Oil Co. Ltd.	11,677.00
N. 1/2 16-117-5-6	General Crude Oil Company	675,200.00
S. 1/2 16-117-5-6	Canadian Industrial Gas & Oil Ltd., Canadian Kewassee Limited and Terrebonne Petroleum Ltd.	481,716.00
S. 1/2 21-117-5-6	General Crude Oil Company	355,200.00
N.E. 1/4 33-117-5-6	Chevron Standard Limited	388,726.00
E. 1/2 4-118-5-6	Chevron Standard Limited	509,826.00
W. 1/2 12-120-5-6	Pembina Pipe Line Ltd.	48,000.00
S. 1/2 26-121-5-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Alcon Petroleums Ltd.	56,322.00
S. 1/2 27-121-5-6	Sinclair Canada Oil Company, Skelly Oil Company and Sunray DX Oil Company	97,065.60
W. 1/2 36-121-5-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Alcon Petroleums Ltd.	48,322.00
N. 1/2 & S.W. 1/4 16-108-6-6	Amerada Petroleum Corporation and Union Oil Company of Canada Limited	50,333.00
S.E. 1/4 7-111-6-6	Chevron Standard Limited	203,086.00
S. 1/2 35-119-6-6	Banff Oil Ltd. and Aquitaine Company of Canada Ltd.	40,320.00
W. 1/2 27-120-6-6	Ashland Oil & Refining Company	21,555.00
S. 1/2 32-120-6-6	Pembina Pipe Line Ltd.	48,000.00
N.E. 1/4 33 & N.W. 1/4 34-107-7-6	Ashland Oil & Refining Company, Monsanto Oils Ltd. and Monsanto Company	117,577.78
W. 1/2 5-110-7-6	Montreal Trust Company	256,000.00
E. 1/2 6-110-7-6	Montreal Trust Company	92,000.00
W. 1/2 16-110-7-6	Imperial Oil Enterprises Ltd. and Imperial Oil Limited	482,643.44
S. 1/2 20-110-7-6	Imperial Oil Enterprises Ltd. and Imperial Oil Limited	482,786.31
S. 1/2 1-111-7-6	Chevron Standard Limited	103,086.00
N. 1/2 23-120-7-6	Chieftain Development Co. Ltd., Blue Crown Petroleums Ltd. and Colorado Oil and Gas Corporation	34,270.00
E. 1/2 25-120-7-6	Canadian Fina Oil Limited	29,246.00
N.E. 1/4 9 & N.W. 1/4 10-122-7-6	Chevron Standard Limited	33,668.00
S.W. 1/4 15 & S.E. 1/4 16-122-7-6	Chevron Standard Limited	33,668.00
N. 1/2 23-120-8-6	Mobil Oil Canada, Ltd.	65,670.00
N. 1/2 14-125-9-6	Canadian Fina Oil Limited	20,246.00

CROWN RESERVES PURCHASED ELSEWHERE IN ALBERTA (Continued)

Description	Offer Accepted From:	Cash Purchase Price
N.W. ¼ 7-99-10-6 & N.E. ¼ 12-99-11-6	Thomas R. H. Hicks	\$ 19,766.00
W. ½ 24-107-10-6	Banff Oil Ltd., Aquitaine Company of Canada Ltd. and Mobil Oil Canada, Ltd.	80,322.00
S. ½ 23-116-10-6	Dekalb Petroleum Corporation	48,031.00
Sec. 25-98-11-6	Thomas R. H. Hicks	32,666.00
S. ½ 24-99-11-6	Thomas R. H. Hicks	19,666.00
Sec. 17-102-11-6	Mobil Oil Canada, Ltd.	32,260.00
W. ½ 29-118-11-6	Canadian Homestead Oils Limited and Supertest Petroleum Corporation, Limited	24,211.00
		<hr/> \$ 55,436,821.31

PETROLEUM AND NATURAL GAS RESERVATIONS PURCHASED IN PROVINCIAL RESERVES

Comprising	Offer Accepted From:	Cash Purchase Price
86,400 acres in township 88, ranges 8, 9 and 10, west of the 6th meridian, in township 89, ranges 7, 8, 9 and 10, west of the 6th meridian and in township 90, range 9, west of the 6th meridian and located in Clear Hills Provincial Reserve.	Scurry-Rainbow Oil Limited	\$ 61,528.00
75,079 acres in townships 88 and 89, ranges 11, 12 and 13, west of the 6th meridian and located in Clear Hills Provincial Reserve.	Texaco Canada Limited	105,110.60
39,819 acres in townships 89 and 90, ranges 12 and 13, west of the 6th meridian and located in Clear Hills Provincial Reserve.	Scurry-Rainbow Oil Limited	91,981.89
23,040 acres in township 68, range 24, west of the 4th meridian and located in Big Bend Provincial Reserve.	Atlantic Richfield Company	14,737.00
		<hr/> \$ 273,357.49

CROWN RESERVE DRILLING RESERVATIONS PURCHASED

Comprising	Offer Accepted From:	Cash Purchase Price
5,440 acres in township 46, range 3, west of the 5th meridian — Lea Park formation — eight quarter sections.	Canada-Cities Service Petroleum Corporation	\$ 52,505.60
8,320 acres in township 61, ranges 19 and 20, west of the 5th meridian — Triassic system — twelve quarter sections.	Chevron Standard Limited	136,281.00
7,200 acres in township 104, range 19, west of the 5th meridian — immediately above the Precambrian granite — ten quarter sections.	Ranger Oil (Canada) Limited	17,600.00
6,720 acres in townships 116 and 117, ranges 19 and 20, west of the 5th meridian — immediately above the Precambrian granite — nine quarter sections.	Pan American Petroleum Corporation	40,000.00
7,680 acres in townships 101 and 102, ranges 23 and 24, west of the 5th meridian—immediately above the Precambrian granite — eleven quarter sections.	Ranger Oil (Canada) Limited	18,700.00

CROWN RESERVE DRILLING RESERVATIONS PURCHASED (Continued)

Comprising	Offer Accepted From:	Cash Purchase Price
10,720 acres in townships 65 and 66, ranges 24 and 25, west of the 5th meridian — Gilwood sand of the Elk Point group — sixteen quarter sections.	Triad Oil Co. Ltd.	\$ 64,070.00
11,544 acres in townships 66 and 67 ranges 26 and 27, west of the 5th meridian — Winterburn group — sixteen quarter sections.	Chevron Standard Limited and Standard Oil Company of British Columbia Limited	258,362.00
10,880 acres in townships 63 and 64, ranges 1 and 2, west of the 6th meridian and in township 64, range 3, west of the 6th meridian — Leduc formation of the Woodbend group — sixteen quarter sections.	The Atlantic Refining Company and Sinclair Canada Oil Company	25,630.00
8,320 acres in townships 121 and 122, range 5, west of the 6th meridian and in township 122, range 6, west of the 6th meridian — immediately above the Precambrian granite — twelve quarter sections.	Canadian Homestead Oils Limited	48,213.00
8,320 acres in township 122, ranges 5 and 6, west of the 6th meridian — immediately above the Precambrian granite — twelve quarter sections.	Canada-Cities Service Petroleum Corporation	53,702.40
8,160 acres in township 106, ranges 6 and 7, west of the 6th meridian — immediately above the Precambrian granite — twelve quarter sections.	The British American Oil Company Limited, Leduc Calmar Oil Company Limited, Monterey Petroleum Corporation Ltd. and Wainwright Producers and Refiners Ltd.	1,640,160.12
8320 acres in townships 123 and 124, ranges 6 and 7, west of the 6th meridian — Chinchaga formation of the Elk Point group — twelve quarter sections.	Bailey Selburn Oil & Gas Ltd.	51,313.97
9,120 acres in township 102, range 9, west of the 6th meridian and in townships 102, and 103, range 10 west of the 6th meridian — Chinchaga formation of the Elk Point group — fourteen quarter sections.	Ranger Oil (Canada) Limited	23,860.00
9,440 acres in townships 102, and 103, ranges 9 and 10, west of the 6th meridian — Chinchaga formation of the Elk Point group — fourteen quarter sections.	Ranger Oil (Canada) Limited	23,860.00
8,640 acres in township 110, range 9, west of the 6th meridian, in townships 110 and 111, range 10, west of the 6th meridian and in township 111, range 11, west of the 6th meridian — immediately above the Precambrian granite — twelve quarter sections.	Westcoast Production Co. Ltd.	808,320.55
7,680 acres in townships 121 and 122, ranges 9 and 10, west of the 6th meridian — immediately above the Precambrian granite — twelve quarter sections.	Pan American Petroleum Corporation	23,045.00
7,360 acres in townships 20 and 21, range 4, west of the 5th meridian and in township 21, range 5, west of the 5th meridian — Mississippian — ten quarter sections.	Imperial Oil Enterprises Ltd.	18,377.00
9,600 acres in township 38, range 6, west of the 5th meridian and in townships 37, 38 and 39, range 7, west of the 5th meridian — Mississippian — fourteen quarter sections.	Edwin Lochridge Cox, Southeastern Oil Co. and Seafort Petroleum Ltd.	151,151.51

CROWN RESERVE DRILLING RESERVATIONS PURCHASED (Continued)

Comprising	Offer Accepted From:	Cash Purchase Price
6,080 acres in township 46, ranges 8 and 9, west of the 5th meridian — Cardium formation — ten quarter sections.	Pan American Petroleum Corporation	\$ 43,560.00
6,400 acres in township 87, range 11, west of the 5th meridian and in townships 86 and 87, range 12, west of the 5th meridian — immediately above the Precambrian granite — nine quarter sections.	Chevron Standard Limited	21,221.00
8,000 acres in townships 58 and 59, ranges 14 and 15, west of the 5th meridian — Banff formation — twelve quarter sections.	Hamilton Brothers Canadian Gas Company Ltd. and Home Oil Company Limited	38,112.00
7,040 acres in townships 83 and 84, range 16, west of the 5th meridian and in township 84, range 17, west of the 5th meridian — immediately above the Precambrian granite — ten quarter sections.	Chevron Standard Limited	21,221.00
11,520 acres in townships 48 and 49, range 17, west of the 5th meridian and in townships 49 and 50, range 18, west of the 5th meridian — Banff formation — sixteen quarter sections.	Chevron Standard Limited	233,333.00
6,560 acres in township 101, range 21, west of the 5th meridian and in townships 100 and 101, range 22, west of the 5th meridian — Elk Point group — nine quarter sections.	Ranger Oil (Canada) Limited	16,200.00
6,240 acres in townships 118 and 119 range 23, west of the 5th meridian — immediately above the Precambrian granite — nine quarter sections.	Canadian Superior Oil Ltd., French Petroleum Company of Canada Ltd., Union Oil Company of Canada Limited and Sun Oil Company	44,640.00
5,920 acres in township 119, ranges 23 and 24, west of the 5th meridian — immediately above the Precambrian granite — nine quarter sections.	Canadian Superior Oil Ltd., French Petroleum Company of Canada Ltd., Union Oil Company Limited and Sun Oil Company	44,640.00
7,040 acres in township 126, range 5, west of the 6th meridian and in townships 125 and 126, range 6, west of the 6th meridian — immediately above the Precambrian granite — twelve quarter sections.	Midwest Oil Corporation	27,225.60
7,040 acres in township 126, ranges 5 and 6, west of the 6th meridian — immediately above the Precambrian granite — twelve quarter sections.	Sun Oil Company and Royal American Petroleum Ltd.	61,056.00
9,120 acres in townships 38 and 39, range 6, west of the 5th meridian, in townships 39 and 40, range 7, west of the 5th meridian and in townships 39 and 40, range 8, west of the 5th meridian — Mississippian — fourteen quarter sections.	Canadian Gridoil Limited, Seafort Petroleum Ltd. and Crows Nest Pass Oil and Gas Company, Limited	51,000.00
6,240 acres in township 75, range 6, west of the 5th meridian — Gilwood sand of the Elk Point group — ten quarter sections.	Texaco Exploration Company	87,248.37
9,440 acres in township 54, ranges 19 and 20, west of the 5th meridian — Notikewin member — fourteen quarter sections.	Pan American Petroleum Corporation and Triad Oil Co. Ltd.	28,508.00
7,040 acres in townships 67 and 68, ranges 20 and 21, west of the 5th meridian — Triassic system — ten quarter sections.	The British American Oil Company Limited	18,001.98

CROWN RESERVE DRILLING RESERVATIONS PURCHASED (Continued)

Comprising	Offer Accepted From:	Cash Purchase Price
10,880 acres in townships 66 and 67, ranges 24 and 25, west of the 5th meridian — Woodbend group — sixteen quarter sections.	Triad Oil Co. Ltd.	\$ 75,075.75
8,160 acres in township 117, range 1, west of the 6th meridian and in townships 117 and 118, range 2, west of the 6th meridian — immediately above the Precambrian granite — twelve quarter sections.	Tenneco Oil & Minerals, Ltd.	81,188.00
4,960 acres in township 65, ranges 21 and 22, west of the 4th meridian — Wabamun group — eight quarter sections.	Canadian Industrial Gas & Oil Ltd.	19,300.00
6,400 acres in township 46, ranges 5 and 6, west of the 5th meridian — Cardium formation — nine quarter sections.	Guyer Oil Company Ltd. and Apache Oil Corporation	14,716.80
5,760 acres in townships 59 and 60, range 8, west of the 5th meridian and in township 59, range 9, west of the 5th meridian — Banff formation — nine quarter sections.	Canadian Industrial Gas & Oil Ltd.	53,019.00
7,200 acres in townships 80 and 81, range 9 and 10, west of the 5th meridian — immediately above the Precambrian granite — ten quarter sections.	Tenneco Oil & Minerals, Ltd.	281,688.00
8,320 acres in townships 117 and 118, range 4, west of the 6th meridian — immediately above the Precambrian granite — twelve quarter sections.	The British American Oil Company Limited	2,002,560.99
8,160 acres in township 107, ranges 6 and 7, west of the 6th meridian — immediately above the Precambrian granite — twelve quarter sections.	National Trust Company Limited	848,742.76
8,050 acres in townships 24 and 25, range 2, west of the 5th meridian and in townships 24, 25 and 26, range 3, west of the 5th meridian — Cardium formation — twelve quarter sections.	Western Land Services Ltd.	29,600.00
7,680 acres in township 44, ranges 3 and 4, west of the 5th meridian — Mississippian — eleven quarter sections.	Imperial Oil Enterprises Ltd.	35,643.45
12,160 acres in townships 21 and 22, range 5, west of the 5th meridian and in townships 22 and 23, range 6, west of the 5th meridian — Shunda formation of the Rundle group — sixteen quarter sections.	Shell Canada Limited	165,011.80
12,160 acres in township 23, range 5, west of the 5th meridian and in townships 23, 24 and 25, range 6, west of the 5th meridian — Shunda formation of the Rundle group — sixteen quarter sections.	Shell Canada Limited	550,011.80
6,240 acres in townships 58 and 59, range 6, west of the 5th meridian and in township 59, range 7, west of the 5th meridian — Banff formation — nine quarter sections.	Canadian Fina Oil Limited	22,550.40
8,000 acres in townships 52 and 53, range 15, west of the 5th meridian and in township 53, range 16, west of the 5th meridian — Mississippian — fourteen quarter sections.	Western Land Services Ltd.	45,600.00

CROWN RESERVE DRILLING RESERVATIONS PURCHASED (Continued)

Comprising	Offer Accepted From:	Cash Purchase Price
8,320 acres in townships 80 and 81, range 16, west of the 5th meridian — immediately above the Precambrian granite — twelve quarter sections.	Clark Oil & Refining Corporation	\$ 29,760.00
7,680 acres in township 47, range 24, west of the 5th meridian and in townships 47 and 48, range 25, west of the 5th meridian — Devonian system — eleven quarter sections.	Shell Canada Limited and Canadian Fina Oil Limited	25,188.50
10,880 acres in townships 18, 19, 20 and 21, range 1, west of the 5th meridian and in township 21, range 2, west of the 5th meridian — Crossfield formation of the Wabamun group — sixteen quarter sections.	Bailey Selburn Oil & Gas Ltd.	217,929.51
8,160 acres in townships 42 and 43, range 5, west of the 5th meridian — Mississippian — twelve quarter sections.	Texaco Exploration Company and Texaco Canada Limited	164,766.96
6,080 acres in townships 118 and 119, ranges 21 and 22, west of the 5th meridian — immediately above the Precambrian granite — nine quarter sections.	Central-Del Rio Oils Limited	1,051,831.00
6,400 acres in townships 121 and 122, range 21, west of the 5th meridian — Chinchaga formation of the Elk Point group — nine quarter sections.	Dekalb Petroleum Corporation	127,987.20
9,440 acres in townships 67 and 68, range 22, west of the 5th meridian — Leduc formation of the Woodbend group — fourteen quarter sections.	Transalta Exploration Ltd.	35,840.00
6,240 acres in township 118, ranges 22 and 23, west of the 5th meridian — immediately above the Precambrian granite — nine quarter sections.	Sinclair Canada Oil Company, Skelly Oil Company and Sun-ray-DX Oil Company	437,745.60
8,320 acres in township 106, ranges 3 and 4, west of the 6th meridian — immediately above the Precambrian granite — twelve quarter sections.	Chieftain Development Co. Ltd. and Home Oil Company Limited	52,670.00
7,680 acres in township 119, ranges 3 and 4, west of the 6th meridian — immediately above the Precambrian granite — eleven quarter sections.	Dome Petroleum Limited, Provo Gas Producers Limited, Canadian Superior Oil Ltd. and Dekalb Petroleum Corporation	3,051,642.00
7,200 acres in township 120, range 3, west of the 6th meridian and in townships 120 and 121, range 4, west of the 6th meridian — Chinchaga formation of the Elk Point group — ten quarter sections.	Canada-Cities Service Petroleum Corporation	352,003.90
7,040 acres in township 109, ranges 4 and 5, west of the 6th meridian — immediately above the Precambrian granite — ten quarter sections.	J. M. Huber Corporation	803,200.00
7,040 acres in township 111, range 4, west of the 6th meridian — immediately above the Precambrian granite — ten quarter sections.	Sinclair Canada Oil Company, Skelly Oil Company and Sun-ray-DX Oil Company	506,384.00
7,680 acres in township 119, ranges 5 and 6, west of the 6th meridian — immediately above the Precambrian granite — eleven quarter sections.	Canadian Superior Oil Ltd., French Petroleum Company of Canada Ltd., Union Oil Company of Canada Limited, Sun Oil Company Limited and Amerada Petroleum Corporation	1,278,000.00

CROWN RESERVE DRILLING RESERVATIONS PURCHASED (Continued)

Comprising	Offer Accepted From:	Cash Purchase Price
7,040 acres in townships 117 and 118, range 10, west of the 6th meridian — Chinchaga formation of the Elk Point group — ten quarter sections.	Amerada Petroleum Corporation	\$ 104,397.00
5,440 acres in township 81, range 24, west of the 4th meridian — McMurray formation — eight quarter sections.	Texaco Exploration Company	32,966.48
5,760 acres in townships 80 and 81, range 25, west of the 4th meridian — McMurray formation — eight quarter sections.	Texaco Exploration Company	35,251.26
10,080 acres in townships 26 and 27, range 3 west of the 5th meridian and in townships 26, 27 and 28, range 4, west of the 5th meridian — Turner Valley formation of the Rundle group — sixteen quarter sections.	Supertest Investments and Petroleum Limited, Teck Corporation Limited, Altana Exploration Company, Laurence Oil Co. Ltd. and Numac Oil & Gas Ltd.	38,493.00
5,760 acres in township 61, ranges 4 and 5, west of the 5th meridian — Banff formation — eight quarter sections.	Texaco Exploration Company and Amerada Petroleum Corporation	15,206.58
6,400 acres in townships 125 and 126, range 18, west of the 5th meridian — immediately above the Precambrian granite — nine quarter sections.	Investors Petroleum Producers Ltd.	43,334.00
7,840 acres in township 119, ranges 4 and 5, west of the 6th meridian and in township 120, ranges 5 and 6, west of the 6th meridian — immediately above the Precambrian granite — eleven quarter sections.	Monsanto Oils Ltd. and Monsanto Company, Ashland Oil & Refining Company and Jefferson Lake Petrochemicals of Canada Ltd.	602,970.00
8,160 acres in townships 121 and 122, range 6, west of the 6th meridian — immediately above the Precambrian granite — eleven quarter sections.	Mobil Oil Canada, Ltd.	353,750.00
7,840 acres in township 121, ranges 7 and 8, west of the 6th meridian — the Chinchaga formation — eleven quarter sections.	Mobil Oil Canada, Ltd.	529,750.00
6,854 acres in townships 52 and 53, ranges 5 and 6, west of the 5th meridian — Mississippian — ten quarter sections.	Montreal Trust Company	86,012.00
7,680 acres in township 77, range 6, west of the 5th meridian and in townships 77 and 78, range 7, west of the 5th meridian — immediately above the Precambrian granite — eleven quarter sections.	Chevron Standard Limited	70,178.00
7,840 acres in townships 76 and 77, ranges 10 and 11, west of the 5th meridian — immediately above the Precambrian granite — eleven quarter sections.	Sun Oil Company Limited	105,600.00
6,400 acres in township 125, range 19, west of the 5th meridian — immediately above the Precambrian granite — nine quarter sections.	Sinclair Canada Oil Company, Skelly Oil Company and Sunray-DX Oil Company	84,424.00
6,560 acres in township 117, range 20, west of the 5th meridian — immediately above the Precambrian granite — nine quarter sections.	J. M. Huber Corporation, Husky Oil Canada Ltd. and Pembina Pipe Line Ltd.	25,660.80
6,560 acres in township 126, range 20, west of the 5th meridian — immediately above the Precambrian granite — nine quarter sections.	Chevron Standard Limited	97,716.26

CROWN RESERVE DRILLING RESERVATIONS PURCHASED (Continued)

Comprising	Offer Accepted From:	Cash Purchase Price
8,000 acres in township 71, range 21, west of the 5th meridian and in townships 70 and 71, range 22, west of the 5th meridian — Wabamun group — twelve quarter sections.	Montreal Trust Company	\$ 85,338.00
6,560 acres in township 117, range 21, west of the 5th meridian — immediately above the Precambrian granite — nine quarter sections.	Tenneco Oil & Minerals, Ltd.	105,578.00
6,240 acres in townships 118 and 119, range 21, west of the 5th meridian and in township 119, range 22, west of the 5th meridian — immediately above the Precambrian granite — nine quarter sections.	Chevron Standard Limited	2,126,126.00
8,000 acres in township 117, ranges 2 and 3, west of the 6th meridian — immediately above the Precambrian granite — eleven quarter sections.	Amerada Petroleum Corporation and Sun Oil Company Limited	301,226.00
7,520 acres in township 120, ranges 4 and 5, west of the 6th meridian — immediately above the Precambrian granite — eleven quarter sections.	Canadian Homestead Oils Limited J. M. Huber Corporation, Super-test Petroleum Corporation Limited and Teck Corporation Limited	97,139.00
8,320 acres in townships 106 and 107, range 6, west of the 6th meridian — immediately above the Precambrian granite — twelve quarter sections.	Canadian Pacific Oil & Gas Limited	570,240.00
7,840 acres in townships 117 and 118, range 6, west of the 6th meridian and in township 118, range 7, west of the 6th meridian — immediately above the Precambrian granite — eleven quarter sections.	Montreal Trust Company	3,226,727.00
7,680 acres in township 122, ranges 6 and 7, west of the 6th meridian — Chinchaga formation of the Elk Point group — eleven quarter sections.	Shell Canada Limited	614,976.76
7,680 acres in townships 125 and 126, range 11, west of the 6th meridian — immediately above the Precambrian granite — eleven quarter sections.	Chevron Standard Limited	76,876.26
8,800 acres in townships 108 and 109, range 12, west of the 6th meridian — immediately above the Precambrian granite — twelve quarter sections.	Central-Del Rio Oils Limited	200,243.52
7,680 acres in townships 62 and 63, range 19, west of the 5th meridian — eleven quarter sections — Mississippian.	Chevron Standard Limited and The British American Oil Company Limited	215,538.00
6,400 acres in township 118, ranges 21 and 22, west of the 5th meridian — immediately above the Precambrian granite — nine quarter sections.	Chevron Standard Limited	37,618.00
6,880 acres in township 63, range 23, west of the 5th meridian and in townships 63 and 64, range 24, west of the 5th meridian — Dunvegan formation — ten quarter sections.	Pan American Petroleum Corporation	105,416.00
7,840 acres in township 119, range 6, west of the 6th meridian and in townships 118 and 119, range 7, West of the 6th meridian — immediately above the Precambrian granite — eleven quarter sections.	Mobil Oil Canada, Ltd.	617,790.00

CROWN RESERVE DRILLING RESERVATIONS PURCHASED (Continued)

Comprising	Offer Accepted From:	Cash Purchase Price
7,680 acres in township 122, range 7, west of the 6th meridian — Chinchaga formation of the Elk Point group — eleven quarter sections.	Mobile Oil Canada, Ltd.	\$ 61,830.00
7,840 acres in township 123, ranges 8 and 9, west of the 6th meridian — immediately above the Precambrian granite — eleven quarter sections.	Placid Oil Company	52,800.00
7,040 acres in township 111, range 9, west of the 6th meridian — Slave Point formation — ten quarter sections.	Husky Oil Canada Ltd.	57,321.00
5,920 acres in township 86, ranges 11 and 12, west of the 6th meridian — Halfway formation of the Schooler Creek group — eight quarter sections.	Pan American Petroleum Corporation and Imperial Oil Enterprises Ltd.	25,316.00
8,198 acres in townships 120 and 121, ranges 11 and 12, west of the 6th meridian — immediately above the Precambrian granite — eleven quarter sections.	Transalta Exploration Ltd.	25,700.50
		<u>\$ 27,380,285.94</u>

CROWN RESERVE NATURAL GAS LICENCES PURCHASED

Comprising	Offer Accepted From:	Cash Purchase Price
7,360 acres in townships 77 and 78, range 22, west of the 4th meridian.	Pan American Petroleum Corporation	\$ 3,753.60
23,040 acres in townships 73 and 74, ranges 23 and 24, west of the 4th meridian.	Supertest Petroleum Corporation Limited	47,311.16
21,120 acres in townships 73 and 74, range 24, west of the 4th meridian and in townships 73, 74, and 75, range 25, west of the 4th meridian.	J. M. Huber Corporation and Apache Corporation	255,763.20
22,880 acres in township 65, ranges 12, 13 and 14, west of the 4th meridian and in township 66, ranges 13 and 14, west of the 4th meridian.	Supertest Investments and Petroleum Limited, Northwestern Utilities Limited and Canadian Industrial Gas & Oil Ltd.	80,576.53
6,720 acres in township 67, ranges 17 and 18, west of the 4th meridian.	Western Land Services Ltd.	12,100.00
10,400 acres in townships 64 and 65, ranges 22 and 23, west of the 5th meridian.	Mobil Oil Canada, Ltd.	72,730.00
		<u>\$ 472,234.49</u>

CROWN RESERVE FRACTIONAL AREA LEASES PURCHASED

Comprising	Offer Accepted From:	Cash Purchase Price
56.6 acres in the south west quarter of section 16, township 54, range 3, west of the 5th meridian.	Texaco Exploration Company	\$ 899.00
421 acres in the east half of section 17 and the east half of section 20, township 54, range 3, west of the 5th meridian.	Texaco Exploration Company	8,702.00

CROWN RESERVE FRACTIONAL AREA LEASES PURCHASED (Continued)

Comprising	Offer Accepted From:	Cash Purchase Price
79 acres in the south east quarter of section 19, township 54, range 3, west of the 5th meridian.	Texaco Exploration Company	\$ 1,633.00
402.5 acres in the east half of section 25 and the south half of section 36, township 54, range 4, west of the 5th meridian.	Texaco Exploration Company	10,328.00
80 acres in section 20, township 39, range 3, west of the 5th meridian.	Hudson's Bay Oil and Gas Company Limited	5,000.00
78.5 acres in section 25, township 54, range 4, west of the 5th meridian.	Texaco Exploration Company	2,014.00
198.7 acres in the west half of section 35, township 54, range 4, west of the 5th meridian.	Texaco Exploration Company	3,900.00
16.4 acres in the west half of section 9, township 26, range 6, west of the 5th meridian.	Shell Canada Limited	1,733.00
29.43 acres in the south east quarter of section 22, the north half of section 15 and the south half and north east quarter of section 23, township 25, range 6, west of the 5th meridian.	Shell Canada Limited	5,524.00
48.3 acres in the east half of section 4, township 26, range 6, west of the 5th meridian.	Shell Canada Limited	5,104.00
19 acres in the south east quarter of section 18, township 80, range 9, west of the 5th meridian.	Atlantic Richfield Company	14,250.00
107 acres in the south west quarter of section 19, township 80, range 9, west of the 5th meridian.	Atlantic Richfield Company	51,412.00
23.6 acres in the north half and south east quarter of section 17, township 37, range 2, west of the 5th meridian.	Imperial Oil Enterprises Ltd.	857.00
28 acres in the north east quarter of section 9, township 37, range 2, west of the 5th meridian.	Imperial Oil Enterprises Ltd.	1,017.00
261 acres in the north half of section 15, township 39, range 2, west of the 5th meridian.	The British American Oil Company Limited and Birch Cove Farms Ltd.	23,500.00
		<hr/> \$ 135,873.00

Reservations—During the fiscal year 180 reservations were issued covering an area of 5,495,046 acres and at the close of the year 858 reservations were active containing an area of 40,356,996 acres.

The revenue from reservation fees amounted to \$45,750.00; for extending reservations amounted to \$8,036,507.85 and the revenue from bonuses accepted by the Director of Minerals at sales of petroleum and natural gas reservations by tender amounted to \$5,187,159.20.

Credit of not in excess of fifty per cent of the approved expenditures incurred in geophysical examination including drilling on petroleum and natural gas reservations may apply to the rental for one year of any lease or leases acquired out of reservations and during

the fiscal year under review rentals of \$2,238,626.70 were satisfied from such expenditures.

During the year the Petroleum and Natural Gas Reservation Regulations were amended so as to allow reservation deposits to be in the form of promissory notes in addition to cash and bonds.

Crown Reserve Drilling Reservations — During the fiscal year 94 drilling reservations were issued covering an area of 727,766 acres and at the close of the year 114 were active containing an area of 923,606 acres.

The revenue from drilling reservation fees amounted to \$23,500.00 from rentals \$518,032.25 and the revenue from accepted offers at sales of Crown reserve drilling reservations amounted to \$27,380,285.94.

Credit may be granted for expenditures incurred in drilling a well on a drilling reservation and applied in satisfaction of the first year's rental. During the fiscal year rentals on leases acquired out of the reservations of \$133,600.00 were satisfied by credit.

Petroleum and Natural Gas Permits—During the fiscal year 92 permits covering an area of 1,441,166 acres were issued and at the close of the year 146 permits were active containing an area of 2,150,207 acres. The revenue from fees was \$920.00 and from rentals was \$2,160,427.40 and the revenue from accepted offers at sales of permits was \$5,602,298.43. Credit of not in excess of fifty per cent may be granted for expenditures incurred in drilling a well on a permit and applied in satisfaction of the first year's rental. During the fiscal year rentals on leases acquired out of the permits of \$1,342,206.75 were satisfied by credit.

Natural Gas Licences—During the fiscal year thirteen natural gas licences covering an area of 207,321 acres were issued and at the close of the year six licences were active containing an area of 98,681 acres. The revenue from fees was \$3,750.00 and from rentals was \$18,478.05. Credit may be granted for expenditures incurred in drilling a well on a natural gas licence and applied in satisfaction of the first year's rental. During the fiscal year rentals on leases acquired out of the licences of \$9,509.33 were satisfied by credit.

During the year the Natural Gas Licence Regulations were amended so as to enable a licensee in Block A as well as elsewhere in the Province to acquire a petroleum and natural gas lease in the quarter section in which an oil discovery is made.

Crown Reserve Natural Gas Licences—During the fiscal year six Crown reserve natural gas licences covering an area of 91,520 acres were issued. At the close of the year nine licences were active, containing an area of 126,461 acres. The revenue from fees was \$1,500.00, from rentals \$14,422.10 and the revenue from accepted offers at sales of Crown reserve natural gas licences amounted to \$472,234.49.

Natural Gas Leases—During the fiscal year 22 natural gas leases were issued covering 82,992 acres, and at the close of the fiscal year

a total of 1,103 leases were in existence comprising an area of 4,231,125 acres. Twelve of the leases were granted out of natural gas licences or Crown reserve natural gas licences and permit the recovery of natural gas from one or more zones specified in the lease. Six leases were issued comprising the balance of the spacing units to permit natural gas wells that were capable of commercial production to be operated at full production allowables, three were issued for unit operations and one to complete the spacing unit for a section included in a gas contract.

The annual rental of a natural gas lease is thirty-three and one-third cents an acre. While an adequate market or a market in which the lessee may participate is not available, the annual rental is reduced to ten cents an acre. The revenue from fees was \$220.00 and from lease rentals \$966,697.87.

COAL

In the fiscal year, 34 leases were issued containing 20,221 acres, being made up of new and renewal and second renewal leases. There are now 441 active leases comprising 173,752 acres. There were three road allowances coal mining leases issued and there are now 94 active. The revenue received from fees was \$190.00 and from lease rentals \$83,350.35.

Crown royalties collected during the fiscal year were \$215,939.09 and the following tonnage of coal subject to royalty was mined.

	Tons
Coal Leases	1,934,256
Coal Lands and Mineral Sales	200,733
Total	<u>2,134,989</u>

QUARRYING

During the fiscal year six quarrying leases comprising a total of 1,354 acres were issued, four for limestone, one for gypsum and one for bentonite.

Extraction of 769,225 tons of limestone and shale, 16,951 cubic yards of clay, 13,198 tons of bentonite, 16,150 tons of sandstone, 490 tons of building stone and 175 tons of dolomitic siltstone from Crown leases was reported and at the close of the fiscal year 99 quarrying leases containing an area of 19,890 acres were active.

BITUMINOUS SANDS

There were three permits and 81 leases active at the close of the year.

OIL SANDS

There were 31 oil sands leases active at the close of the year.

QUARTZ

During the fiscal year four claims were continued for a further year.

PLACER

During the fiscal year one claim was renewed for another year. There were 168 ounces of gold and 16 ounces of silver recovered at a gravel plant.

SODIUM CHLORIDE (Common Salt)

During the fiscal year the plant near Lindbergh operated and reported extraction of 65,156 tons, a decrease of 503 tons from the previous year.

SULPHUR

During the fiscal year, there were two sulphur prospecting permits issued comprising 39,200 acres. The total production of sulphur in Alberta in 1966 was 1,676,220 tons, an increase of 137,792 tons over that reported the previous year. All of this production was recovered in the processing of natural gas.

MISCELLANEOUS LEASES

A special mineral lease was issued to Home Oil Company Limited covering 160 acres in section 30, township 42, range 9, west of the 4th meridian. It is proposed to use the area for underground storage of liquid petroleum gases.

IRON

Seven iron leases containing an area of 40,499 acres were active, at the close of the year. Seven iron prospecting permits were issued comprising 603,274 acres.

ROCK PHOSPHATE

During the fiscal year one Rock Phosphate Prospecting Permit was issued comprising 19,473 acres and at the close of the year this was the only permit active.

POTASH

At the close of the fiscal year two Potash Prospecting Permits comprising 112,643 acres were active.

ROADWAY SALES

During the fiscal year two notifications were issued pursuant to section 24 of The Mines and Minerals Act, 1962. Section 24 provides a means whereby minerals in roadways may be returned to the adjacent owner.

WELL LICENCES

During the fiscal year there were 1,581 licences issued for wells to be drilled for the purpose of obtaining oil or gas, 68 licences were issued for the purpose of drilling test holes, fourteen licences were issued for wells to be drilled for the purpose of injecting gas, air, water or other substance to an underground formation, 49 licences were issued for wells to be drilled for the purpose of obtaining water for injection and for domestic water wells at depths in excess of 500 feet and five were drilled for geological information and three for salt.

DRILLING STATISTICS

The drilling and production of petroleum and natural gas wells in the Province are administered by the Oil and Gas Conservation Board, 603 - 6th Avenue South West, Calgary, Alberta, and particulars as to the drilling activity, production and statistical data are included in weekly, monthly and annual reports issued by the Board.

GEOPHYSICAL AND GEOLOGICAL EXPLORATION

During the fiscal year 144 licences and 27 permits were issued and 60 permits were renewed.

UNIT OPERATION OF MINERALS

During the fiscal year 22 agreements pursuant to Part VIII of The Mines and Minerals Act, 1962 were entered into for unit operation of petroleum and natural gas properties. These agreements were:

Medicine River Unit No. 2 in township 39, range 3, west of the 5th meridian.

Medicine River Unit No. 1 in townships 39 and 40, range 3, west of the 5th meridian.

Cyn-Pem Cardium Unit No. 1 in township 51, ranges 10 and 11, west of the 5th meridian.

Sundre Rundle "B" Pool Unit in township 34, range 5, west of the 5th meridian.

Northwest Pembina Cardium Unit No. 1 in townships 48 and 49, ranges 8 and 9, west of the 5th meridian.

Calgary Basal Quartz Unit No. 1 Crossfield Field in townships 25 and 26, ranges 28 and 29, west of the 4th meridian.

Taber South Glauconitic "A" Unit No. 1 in township 7, range 16, west of the 4th meridian.

South Edson Gas Unit No. 1 in townships 49 and 50, ranges 16 and 17, west of the 5th meridian.

Buck Creek Cardium Unit No. 1 in townships 47 and 48, ranges 6 and 7, west of the 5th meridian.

North Blackfoot Unit No. 1 in township 50, ranges 1 and 2, west of the 4th meridian.

Leafland Cardium Unit No. 2 in township 40, range 5, west of the 5th meridian.

Strathmore Unit in townships 23, 24 and 25, ranges 24 and 25, west of the 4th meridian.

Joarcam Viking Unit No. 3 in township 49, ranges 21 and 22, west of the 4th meridian.

Joarcam Viking Unit No. 2 in townships 48 and 49, range 21, west of the 4th meridian.

South Provost Viking Gas Unit in townships 34 and 35, ranges 7 and 8, west of the 4th meridian.

Pembina Rose Creek Unit in townships 46 and 47, range 8, west of the 5th meridian.

Rainbow South Keg River A Unit in townships 107 and 108, range 9, west of the 6th meridian.

Simonette D-3 Unit in townships 62 and 63, ranges 25 and 26, west of the 5th meridian.

Three Hills Ostracod Unit in townships 30 and 31, range 23, west of the 4th meridian.

Nevis Unit No. 2 in townships 39 and 40, range 22, west of the 4th meridian.

Rowley Pekisko Unit No. 1 in townships 31 and 32, range 20, west of the 4th meridian.

Medicine River Unit No. 3 in township 39, range 3, west of the 5th meridian.

Where a person is required by or has the approval of the Oil and Gas Conservation Board to proceed with a scheme to inject any substance into an underground formation, he is permitted by section 186 of The Mines and Minerals Act, 1962, to proceed with the scheme without obtaining an agreement.

There were 54 schemes in which Crown mineral rights were involved. Seventeen schemes authorized the return of salt water produced with petroleum and natural gas to subsurface formations in the Joffre, Braeburn, Conrad, Grand Forks, Wizard Lake, Marguerite Lake Area, Cessford, Niton, Princess, Alderson, Leduc Woodbend, Retlaw, Paddle River and Armisic fields. Six schemes permitted the injection of water for pressure maintenance purposes. One was into the Cardium formation of the Pembina field, three into the Jurassic A and B and Basal Quartz A formations of the Medicine River field, one into the Sparky formation of the Lloydminster field and one into the D2A formation of the Golden Spike field. One scheme permitted the cycling of gas in the Westeros South field. Fourteen schemes authorized the injection of water for oil recovery enhancement. Six were into the Cardium formation of the Pembina field, one into the Sparky formation of the Lloydminster field, one into the South Viking formation of the Joffre field, three into the Cardium formation of the Willesden Green field, one into the Jurassic D formation of the Medicine River field, one into the Beaverhill Lake formation of the Swan Hills field, one into the Colorado formation of the Barons field and one into the Mannville B formation of the Taber South field. Three schemes authorized steam

stimulation of wells for oil recovery enhancement in the Lloydminster field. Five schemes authorized the injection of gas for pressure maintenance purposes. Two were into the Viking formation of the Joarcam field, one into the Upper Mannville E formation of the Jenner field, one into the Keystone Belly River X formation of the Pembina field and one into the Keg River B formation of the Rainbow South field. Three schemes authorized the disposal of refinery waste fluids into subsurface formations. Two in the Edmonton area and one in the Joffre Area. One scheme authorized the storage of gas in the Viking A pool of the Judy Creek field. One scheme authorized an experimental scheme for oil recovery enhancement in the Hughenden field. One scheme authorized a pilot test of gas injection for pressure maintenance into the Keg River A pool of the Rainbow field. One scheme authorized a pilot test of water injection for pressure maintenance purposes into the Beaverhill Lake formation of the Goose River field. One scheme authorized the gathering of produced gas from and injection into the Rowley field.

STAFF

At the close of the fiscal year the Division staff numbered 68 and they continued their excellent work.

MINERAL TAX DIVISION

Report of the Superintendent

I. M. Harrington

Producing area tax revenue for the fiscal year ending March 31st, 1967 amounted to \$1,292,078.41 being a decrease of \$87,806.17 from the previous year's revenue of \$1,379,884.58. The tax rate for the 1966 assessment remained at eight mills.

Mineral tax based on acreage for the fiscal year was received in the amount of \$572,858.15 which was an increase of \$30,917.57 from the \$541,940.58 received in the preceding year. The rate of tax remained at three cents an acre.

Fourteen fields were added to the designated producing areas for the year 1966 and were assessed as unitized areas, with assessments being made in accordance with the tract factors listed in the Unit Agreements filed with the Department. These fields were Duhamel, Gilby, Leafland South and Twining assessed as petroleum fields; Bon Accord, Crossfield, Dunmore and South Sibbald assessed as natural gas fields; Erskine, Pembina, Redland, Sylvan Lake, Willesden Green and Wimborne assessed as petroleum and natural gas fields.

All designated producing areas are listed below showing the number of parcels assessed, minerals assessed and the assessed values.

Producing Area	Parcels Assessed	Principal Mineral	Assessed Value
Acheson	29	Petroleum and Natural Gas	\$ 4,200,453.88
Alexander	12	Natural Gas	184,899.70
Bentley	27	Petroleum	992,131.71
Bindloss	4	Natural Gas	44,628.96
Bon Accord	4	Natural Gas	8,214.69
Bonnie Glen	23	Petroleum and Natural Gas	9,532,041.55
Calgary	263	Petroleum and Natural Gas	4,480,778.04
Campbell	14	Petroleum and Natural Gas	169,180.90
Carstairs-Elkton	144	Petroleum and Natural Gas	5,932,274.74
Cessford	19	Petroleum and Natural Gas	453,535.65
Chauvin	4	Petroleum	232,979.97
Clive North	15	Petroleum and Natural Gas	194,539.24
Crossfield	37	Natural Gas	504,106.95
Duhamel	3	Petroleum	157,825.32
Dunmore	9	Natural Gas	26,407.87
Erskine	21	Petroleum and Natural Gas	1,597,355.32
Fort Saskatchewan	116	Natural Gas	909,892.58
Garrington	46	Petroleum	2,293,258.77
Gilby	5	Petroleum	678,559.58
Hackett	10	Natural Gas	87,898.64
Harmattan-Elkton	98	Petroleum and Natural Gas	7,303,755.18
Homeglen-Rimbey	50	Petroleum and Natural Gas	2,888,491.62
Hussar	432	Petroleum and Natural Gas	7,065,488.56

Innisfail	23	Petroleum and Natural Gas	4,549,926.32
Joarcam	61	Petroleum	5,012,448.51
Joffre	48	Petroleum	2,357,510.46
Jumping Pound	83	Natural Gas	864,903.42
Kessler	30	Natural Gas	57,268.78
Leafland South	1	Petroleum	141,574.16
Leduc	179	Petroleum and Natural Gas	15,160,472.16
Lookout Butte	7	Natural Gas	12,994.27
Medicine Hat - Roseglen	20	Natural Gas	60,369.99
Namao	10	Petroleum and Natural Gas	326,506.39
Nevis	100	Natural Gas	1,281,150.22
Okotoks	96	Natural Gas	1,032,729.66
Olds	103	Natural Gas	747,720.76
Oyen	2	Natural Gas	10,976.57
Pembina	8	Petroleum and Natural Gas	1,075,469.71
Pincher Creek	28	Natural Gas	1,603,257.59
Provost	164	Petroleum and Natural Gas	539,660.01
Redland	65	Petroleum and Natural Gas	582,426.89
Redwater	18	Petroleum and Natural Gas	7,411,622.70
Sarcee	1	Natural Gas	311,156.19
Stettler	12	Petroleum	1,822,152.98
South Sibbald	1	Natural Gas	3,593.96
Sundre	2	Petroleum	52,766.90
Sylvan Lake	75	Petroleum and Natural Gas	1,495,802.16
Three Hills Creek	61	Natural Gas	222,162.97
Turner Valley	62	Petroleum and Natural Gas	3,160,183.82
Twining	5	Petroleum	70,075.47
Viking-Kinsella	422	Natural Gas	848,829.95
Wainwright	33	Petroleum	1,612,990.22
Wayne-Rosedale	11	Natural Gas	92,004.05
Westerose	5	Petroleum	3,586,966.29
Westerose South	21	Natural Gas	3,848,483.35
Westward Ho	7	Petroleum	981,373.08
Wildcat Hills	11	Natural Gas	566,863.92
Willesden Green	4	Petroleum and Natural Gas	388,194.95
Wimborne	48	Petroleum and Natural Gas	984,987.28
Wizard Lake	8	Petroleum and Natural Gas	7,232,797.29
Wood River	19	Natural Gas	115,452.59

In addition to the designated producing areas, there were 991 parcels assessed for a total assessed value of \$42,926,373.72, with the principal minerals assessed being petroleum, natural gas, coal and salt.

Under the heading of parcels assessed are the number of items appearing on the assessment roll with each parcel relating to the area contained in a certificate of title. In determining the assessed value of a parcel, each production spacing unit or unit tract is calculated separately; consequently, several calculations may be made in arriving at the assessment for a parcel.

The revenue derived from the taxation of minerals from the enactment of the statute in 1941 until March 31st, 1949 collected by the Department of Lands and Mines was \$1,921,180.47 and revenue col-

lected by the Department of Mines and Minerals from April 1st, 1949 is shown in the following tabulation:

Year	Mill Rate	Producing	Per Acre	Acreage Tax	Fees	Total
1949-50	8	\$ 452,838.16	1½c	\$297,883.10	\$ 286.50	\$ 751,007.76
1950-51	8	526,029.61	1½c	307,062.62	511.00	833,603.23
1951-52	8	444,293.91	1½c	323,185.71	2,320.10	769,799.72
1952-53	8	572,671.45	1½c	310,285.08	3,204.00	886,160.53
1953-54	8	717,352.55	1½c	283,853.18	1,055.50	1,002,261.23
1954-55	8	1,031,913.72	1½c	277,842.74	1,467.00	1,311,223.46
1955-56	8	1,031,802.40	1½c	264,496.50	914.50	1,297,213.40
1956-57	8	1,070,380.73	1½c	272,883.90	1,101.50	1,344,366.13
1957-58	8	1,232,795.31	1½c	282,057.60	1,056.50	1,515,909.41
1958-59	8	1,115,478.85	1½c	306,179.40	472.00	1,422,130.25
1959-60	8	909,799.94	1½c	337,452.83	545.50	1,247,798.27
1960-61	8	957,673.20	1½c	303,051.45	339.00	1,261,063.65
1961-62	8	991,779.50	*3c	277,992.80	545.50	1,270,317.80
1962-63	8	1,210,475.19	3c	530,170.30	446.50	1,741,091.99
1963-64	8	1,367,777.54	3c	550,217.99	203.00	1,918,198.53
1964-65	8	1,360,838.69	3c	579,559.49	368.50	1,940,766.68
1965-66	8	1,379,884.58	3c	541,940.58	171.00	1,921,996.16
1966-67	8	1,292,078.41	3c	572,858.15	207.00	1,865,143.56

*Change in rate effective January 1st, 1962.

There were 414 mineral tax certificates issued during the fiscal year with revenue derived therefrom being \$207.00. A tax certificate shows the amount of current taxes and arrears payable with respect to the mineral or minerals contained in a certificate of title and anyone may obtain a certificate for a fee of fifty cents.

Pursuant to The Mineral Titles Redemption Act, after the mineral titles were acquired by the Crown, there were instances where the minerals had been granted under lease, licence, reservation, permit or other agreement, for exploration and development. The statute provides that where the minerals have been granted by the Crown, the return of the title to the former owner must be delayed until the minerals are no longer under lease, licence, reservation, permit or other agreement. In these instances, the former owner is entitled to receive the moneys collected by the Crown less a deduction of an amount equal to the tax that would have been charged had title been returned.

During the fiscal year the amount of moneys collected on existing agreements and returned to former owners was \$24,662.84. This brings the total to \$434,477.90 that has been returned to former owners since the Act came into force.

There were 7 titles returned to former owners as a result of agreements terminated during the year, making a total of 1,176 titles returned since the inception of the Act. As at March 31st, 1967, there were 34 titles, the redemption of which will be delayed until the leases or other agreements terminate.

PIPE LINE DIVISION

Report of the Superintendent of Pipe Lines

A. L. BERRY

During the fiscal year ending March 31, 1967, 1652 miles of pipe line were licensed; fifty percent of this mileage was for main gas and secondary lines for gas, and twenty five percent was for main oil and secondary lines for oil. Secondary lines for various recovery schemes within oil fields accounted for continuing construction of small diameter lines.

Hudson's Bay Oil and Gas Company Limited constructed a 195 mile, 12-inch diameter line from Sundre to Pincher Creek, connecting existing pipe line facilities for the transmission of crude oil and condensate. Construction began in May and the line was completed in October.

Rainbow Pipe Line Company, Ltd. constructed 183 miles of 24-inch diameter crude oil pipe line extension from Nipisi to Edmonton. Construction commenced in the Edmonton area in November and the line was completed as far as the Flatbush area by the end of December. The balance of the line from Flatbush to Nipisi was built as a winter project completing the final link to the Edmonton area by March.

Rainbow Pipe Line Company, Ltd. also completed a 59 mile, 20-inch diameter northward extension from the Rainbow area to the Zama area. This was entirely a winter project because of the vast muskeg areas encountered. The Rainbow transmission line now reaches 479 miles northwest of Edmonton, serving Alberta's most northerly oil producing areas.

The Great Canadian Oil Sands Limited 267 mile, 16-inch diameter line from the Athabasca Oil Sands process plant was completed in August and was put into operation as a reverse-flow carrier of products and natural gas to be used as fuels required for start-up of the various process units. It is anticipated that synthetic crude oil will be transmitted through this line to Edmonton starting in September, of 1967.

The trend toward increased use of plastic pipe for rural natural gas distribution continues. The Pipe Line Division has had representation on the Canadian Standards Association Committee established to develop standards for "Plastic Pipe for Gas Service" now being used as the basis for CSA Certification. A companion field installation guide, "Recommended Practice for the Installation of Plastic Pipe for Gas Service", has also been prepared and is now in use.

The Pipe Line Division Staff remains unchanged at a total of 19 employees.

The following table shows the mileage and licence statistics related to the various classifications of pipe lines for the year ending March 31, 1967.

SUMMARY OF PIPE LINE LICENCES

	Licensed at March 31, 1966		Licensed During the Year		Cancelled During the Year		Licensed at March 31, 1967	
	Number of Licences	Mileage of Pipe Line	Number of Licences	Mileage of Pipe Line	Number Cancelled	Mileage Cancelled	Number of Licences	Mileage of Pipe Line
Oil Lines	118	2,835.21	8	72.19	....	....	126	2,907.40
Gas Lines	515	5,160.82	39	421.09	1	.04	553	5,581.87
Secondary Lines for Oil....	1,687	2,480.14	169	339.56	14	35.70	1,842	2,784.00
Secondary Lines for Gas	956	3,938.68	132	414.13	4	58.83	1,084	4,293.98
Mineral Lines .....	....	....	1	.82	....	....	1	.82
Secondary Lines for Water and Other Substances	565	1,523.70	98	272.82	4	4.87	659	1,791.65
Distribution Lines	960	727.86	77	131.74	1	.71	1,036	858.89
Private Lines	327	44.44	....	....	4	.94	323	43.50
TOTAL	5,128	16,710.85	524	1,652.35	28	101.09	5,624	18,262.11

TECHNICAL DIVISION

Report of the Superintendent of the Technical Division

J. M. NOVAK

The following report summarizes the operations of the Technical Division for the fiscal year ending March 31, 1967.

DRAUGHTING, LAND DESCRIPTIONS AND GENERAL

The series of maps covering approximately forty-eight townships for each area and on a scale of three-quarters of an inch to the mile were drawn covering the following areas:

BISON LAKE—Townships 93 to 100, Ranges 13 to 18, West of the 5th Meridian.

HIGH LEVEL—Townships 109 to 117, Ranges 18 to 24, West of the 5th Meridian.

KEG RIVER—Townships 101 to 108, Ranges 19 to 25, West of the 5th Meridian.

KEG RIVER EAST—Townships 101 to 108, Ranges 13 to 18, West of the 5th Meridian.

PONTON RIVER—Townships 109 to 117, Ranges 12 to 17, West of the 5th Meridian.

RAM RIVER—Townships 29 to 36, Ranges 12 to 17, West of the 5th Meridian.

STEEN RIVER—Townships 118 to 127, Ranges 18 to 24, West of the 5th Meridian.

YATES RIVER—Townships 118 to 127, Ranges 12 to 17, West of the 5th Meridian.

All new maps drawn and previously drawn are subject to showing the locations of wells as well licences are granted. When the status of a well changes, it is adjusted on the maps. The limits of fields as established by the Oil and Gas Conservation Board are also included on the maps.

A map of the Province showing the location of oil and gas field maps published to March 31, 1967, is included in this report.

One map related to the pipe line series on a scale of one inch to 12 miles was prepared covering the following:

Oil and Gas Fields and Main Pipe Lines in Alberta — showing oil and gas fields, oil and gas discoveries, main oil and gas pipe lines, pipe line operator and gas processing plants and refineries.

The map is subject to revision as changes and additions occur.

A total of 8,234 maps were distributed by the Department. A list of maps is available indicating the price of each map.

During the year, 1,650 applications for licences to drill wells were recommended for issue by the Oil and Gas Conservation Board, which is a decrease of 501 from the 2,151 applications dealt with in the previous year. The Division, upon receipt of each application, searches the ownership of Crown Minerals in the spacing unit allotted to the well.

Land descriptions were prepared for all mineral dispositions, as well as descriptions for recommendations to council.

The map of Alberta showing the areas covered by all petroleum and natural gas reservations to March 31, 1966, has been revised to indicate the area of reservations issued during the present year and is included in this report.

The photostat print requirements of the Department, as in past years, continued to be supplied by the Technical Division, Department of Lands and Forests. This Division supplies the ozalid print requirements of the Department.

RECORDS

In addition to the work completed as shown in the tables hereunder, the Records Branch of the Division supplied 1,447 township plots to the public indicating available Crown minerals and status of Crown minerals compared to 1,719 plots distributed in the previous year.

*DISPOSITIONS, CANCELLATIONS AND TRANSFERS RECORDED IN THE TOWNSHIP REGISTERS

	1965-66	1966-67
Petroleum and Natural Gas Leases	6,195	6,308
Petroleum and Natural Gas Reservations	285	405
Petroleum and Natural Gas Permits	256	233
Petroleum Leases	2	...
Bituminous Sands Prospecting Permits	1	2
Bituminous Sands Leases	2	3
Oil Sands Leases	6	2
Crown Reserve Drilling Reservations	228	205
Crown Reserve Natural Gas Licences	5	8
Natural Gas Licences	17	22
Natural Gas Leases	87	54
Coal Leases	92	56
Road Allowance Coal Leases	12	10
Quarrying Leases	9	12
Quartz Claims	386	4
Placer Claims	2	1
Iron Prospecting Permits	2	7
Iron Leases	1	...
Mineral Sales	2	2
Transfers	2,089	1,559
Notifications	34	35
Pipe Line Permits	709	682
Pipe Line Licences	475	552
Potash Prospecting Permits	6	4
Rock Phosphate Prospecting Permits	24	25
Special Mineral Leases	1	1
Sulphur Prospecting Permits	—	2
TOTALS	10,928	10,194

*Includes issued, reinstated, divided, renewed and certificates of work.

NUMBER OF AGREEMENTS TRANSFERRED

	1965-66	1966-67
Petroleum and Natural Gas Lease	4,131	2,772
Petroleum and Natural Gas Reservation	247	184
Petroleum and Natural Gas Permit	43	26
Petroleum Lease	—	1
Bituminous Sands Lease	6	1
Crown Reserve Drilling Reservation	39	28
Crown Reserve Natural Gas Licence ....	....	3
Natural Gas Lease	232	89
Coal Lease	83	101
Quarrying Lease	13	8
Geophysical Licence	1	1
Pipe Line Permit	25	10
Pipe Line Licence	57	39
Provisional Pipe Line Licence	4	....
Geophysical Permit	2	....
Agreement (Scheme)	3	....
Iron Lease .....	....	1
TOTALS	4,886	3,264

NUMBER OF DOCUMENTS FILED

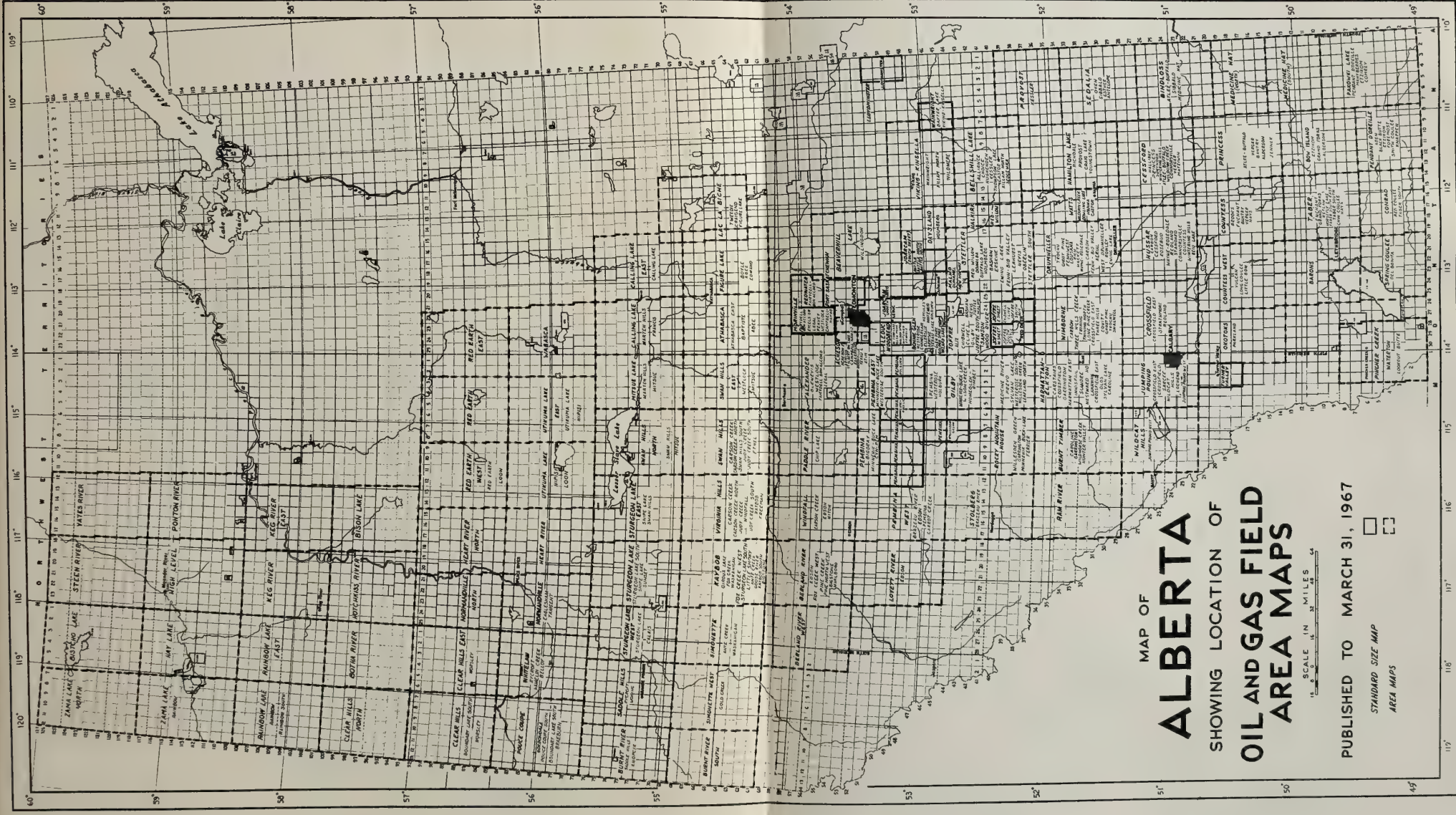
Type of Document	1965-66	1966-67
Mechanic's Lien	11	50
Discharge of Mechanic's Lien	19	27
Bank Securities	253	196
Discharge of Bank Securities	106	367
Hypothecation of Pipe Line	4	4
Discharge of Hypothecation	1	....
TOTALS	394	644

NUMBER OF PIPE LINE PERMITS AND LICENCES
HYPOTHECATED

	1965-66	1966-67
Pipe Line Permit	25	56
Pipe Line Licence	57	48
Provisional Pipe Line Licence	4	4
TOTALS	86	108

Two transfers were issued during the fiscal year for the return of minerals underlying roadways to the owners of the adjacent minerals. Thirty-five notifications for the correction of certificates of title were issued for minerals underlying surveyed roadways.

During the eighteen years of operation of the Department, two hundred and forty-seven notifications and forty transfers have been issued.



ACCOUNTING DIVISION

*Report of the Administrative Accountant and
Personnel Officer*

W. E. SHILLABEER

A surplus of \$240,352,500.60 on Income Account was shown for the Fiscal Year ending March 31st, 1967.

Net Revenue on Income Account amounted to \$242,067,030.81.

Gross Receipts from all sources amounted to \$259,750,869.71.

Expenditure on Income Account for the year amounted to \$1,714,530.21. Particulars of expenditure may be found in Statement "C".

As at March 31st, 1967 there were 39,677 Accounts Receivable as compared with 40,092 as at March 31st, 1966. The number of active accounts as at March 31st, 1967 is made up as follows:

	Number of Accounts
Petroleum and Natural Gas Leases - Rental	29,506
Petroleum and Natural Gas Leases - Royalty	2,196
Petroleum and Natural Gas Reservations	878
Petroleum and Natural Gas Drilling Reservations	138
Petroleum and Natural Gas Permits	156
Natural Gas Licences	14
Natural Gas Leases	1,107
Crown Reserve Natural Gas Licences	9
Coal Leases - Rental	534
Coal Leases - Royalty	78
Quarrying - Royalty	100
Bituminous Sands - Rental	84
Oil Sands - Rental	31
Registration of Assignment Tax	5
Compensatory Royalty	67
Mining Leases (Miscellaneous)	54
Mineral Tax (Producing Area)	4,720
	<hr/> 39,677 <hr/>

There were 4,692 accounts cancelled or closed and 4,277 accounts opened.

INDEX TO STATEMENTS

A—Statement of Receipts from all sources.

B—Statement of Receipts — Income Account.

C—Statement of Expenditure by Appropriation and Character.

D—Statement of Net Receipts by Divisions.

E—Statement of Receipts and Expenditure.

F—Statement of Fiscal Revenue for the last five years and
Total Revenue for the period April 1st, 1949 to March 31st,
1967.

Statement "A"

STATEMENT OF RECEIPTS FROM ALL SOURCES

From April 1st, 1966 to March 31st, 1967

	Gross Receipts	Refunds	Net Receipts
Income Account (See Statement "B")	\$242,480,600.92	\$ 413,570.11	\$242,067,030.81
Transferred Collections	2,517.95	....	2,517.95
Suspense (Unapplied receipts carried forward subject to refund)	17,267,750.84	17,136,859.99	130,890.85
	<u>\$259,750,869.71</u>	<u>\$17,550,430.10</u>	<u>\$242,200,439.61</u>

Statement "B"

STATEMENT OF RECEIPTS — INCOME ACCOUNT

From April 1st, 1966 to March 31st, 1967

	Gross Receipts	Refunds	Net Receipts
COAL MINING			
Coal Fees, Rental, etc.	\$ 83,540.35	\$	\$ 83,540.35
Coal Royalty	215,939.09	.....	215,939.09
Coal Sundry Revenue	2,329.24	26.80	2,302.44
PETROLEUM AND NATURAL GAS			
Petroleum & Natural Gas Fees, Rental, etc.	52,609,132.36	369,081.85	52,240,050.51
Petroleum & Natural Gas Royalty	80,249,915.90	35,422.09	80,214,493.81
Crown Reserve Sales	106,225,023.84	.....	106,225,023.84
MISCELLANEOUS			
Quarrying Fees, Rental & Royalty	83,963.30	10.94	83,952.36
Bituminous Sands Fees, Rentals, etc.....	663,547.33	.....	663,547.33
Oil Sands Fees and Rentals	207,083.18	.....	207,083.18
Miscellaneous Mining	160,171.64	8,581.43	151,590.21
Well Licences	46,650.00	.....	46,650.00
MINERAL TAX	1,865,210.56	67.00	1,865,143.56
PIPELINE ACT SUNDRY REVENUE	12,205.00	40.00	12,165.00
ADMINISTRATION SUNDRY REVENUE	55,889.13	340.00	55,549.13
TOTAL INCOME ACCOUNT			
(Carried to Statement "A")	\$242,480,600.92	\$413,570.11	\$242,067,030.81

Statement "C"

EXPENDITURE CLASSIFIED BY APPROPRIATION AND CHARACTER
FOR THE FISCAL YEAR ENDED MARCH 31, 1967
INCOME ACCOUNT

SERVICE	2001 Minister's Office	2002 General Administration	2004 Pipe Line Division	2005 Geological Division	2006 Mines Division	2007 Minerals Division	2008 Mineral Tax Division	2009 Oil and Gas Property Tax	2010 Technical Division	2011 Abandonment of Mining Properties	2012 Redemption of Mineral Titles	2013 Clay & Marl Crown Lease Act	2014 Right of Entry Arbitration Board	2015 Supervisory & Safety Training Program	2016 Surface Reclamation	2017 Damage Award	TOTAL
Advertising						5,168.28											5,168.28
Purchase of Automobiles, etc.	3,927.82																3,927.82
Automobiles, Trucks & Mobil Equipment Expenses		370.18							638.90								1,009.08
Compensation															52.50	1,000.00	1,052.50
Contracts and Agreements				4,810.00						29,921.05							34,731.05
Entertainment Expenses		16.50															16.50
Fees and Commissions		230.00	26.00		314.00								75.00		4.00	704.00	1,353.00
Freight, Express & Cartage		104.05															104.05
Furnishings, Equipment & Tools		9,071.12	634.06		368.37	6,280.23	810.75		519.22				16.37		59.06		17,759.18
Grants, Prizes														3,600.00			3,600.00
Insurance Premiums			125.70														125.70
Materials, Supplies, Administrative & Construction	217.17	18,200.40	2,193.53		1,128.09	2,111.83	2,493.91		15,052.99				1,145.80		366.00		42,909.72
Postage	150.00	1,500.05	550.00		500.00	8,489.52	1,600.00		300.00				400.00		600.00		14,089.57
Rentals						115.50			5,687.78				26.99				5,830.27
Refunds and Remissions											24,662.84	5,481.20					30,144.04
Repair & Maintenance of Office Machines & Equipment	92.47	1,538.51	237.97		201.94	1,078.62	499.42		782.13				157.33		62.40		4,650.79
Salaries	11,950.00	170,369.38	132,844.33		65,654.51	316,597.14	102,361.58		262,647.84				86,728.71		117,046.85		1,266,200.34
Taxes								150,290.63									150,290.63
Telephones & Telegraphs ..	1,247.34	944.05	3,356.05		196.85	4,986.70	36.50		4,540.44				628.00		2,679.80		18,615.73
Travelling Expenses of Other Than Public Servants					319.48										11,638.23		11,957.71
Tuition									132.00								132.00
Travelling Expenses of Public Servants	1,474.64	1,094.35	33,732.77		8,838.93	1,110.03	2,342.64		994.06				7,985.83		43,289.00		100,862.25
TOTAL: Income Account	19,059.44	203,438.59	173,700.41	4,810.00	77,522.17	345,937.85	110,144.80	150,290.63	291,295.36	29,921.05	24,662.84	5,481.20	97,164.03	3,600.00	175,797.84	1,704.00	1,714,530.21

Statement "D"

STATEMENT OF NET RECEIPTS BY DIVISIONS

For the Fiscal Year Ending March 31st, 1967.

INCOME ACCOUNT:

Minerals Division	\$240,131,870.68
Mineral Tax Division	1,865,143.56
Mines Division	2,302.44
Pipe Line Division	12,165.00
Miscellaneous (Administration Sundry Revenue, etc.)	55,549.13
TRANSFERRED TO OTHER DEPARTMENTS	2,517.95
SUSPENSE (Unapplied receipts carried forward, subject to refund)	130,890.85
	<u>\$242,200,439.61</u>

Statement "E"

STATEMENT OF RECEIPTS AND EXPENDITURE

For Fiscal Year Ending March 31st, 1967.

Gross Receipts	Refunds	Net Receipts	Net Revenue On Income Account	Total Expenditure From Appropriations	Surplus On Income Account
\$259,750,869.71	\$ 17,550,430.10	\$242,200,439.61	\$242,067,030.81	\$ 1,714,530.21	\$240,352,500.60

PERSONNEL

The number of employees in the Department showed an increase of nine from 231 on April 1st, 1966 to 240 on March 31st, 1967.

During the year sixty employees left the Department. Of these three left the city, fourteen resigned to accept employment outside the Government Service, eight left to further their education, eleven transferred to other Departments, and one retired. The remainder left for various other reasons.

**STATEMENT OF FISCAL REVENUE FOR THE LAST
FIVE YEARS
AND
TOTAL REVENUE FOR THE PERIOD APRIL 1, 1949 TO
MARCH 31, 1967**

	Total Revenue April 1, 1949 to March 31, 1962	1962-63	1963-64	1964-65	1965-66	1966-67	Total Revenue April 1, 1949 to March 31, 1967
COAL							
Fees and Rental	\$ 1,399,255.28	\$ 45,776.57	\$ 89,254.08	\$ 62,602.08	\$ 45,938.70	\$ 83,540.35	\$ 1,726,368.06
Royalty	3,443,742.65	112,598.42	122,487.80	174,003.24	212,480.32	215,939.09	4,281,251.52
Sundry Revenue	46,822.35	2,371.85	2,127.05	2,292.25	2,372.67	2,302.44	58,286.61
PETROLEUM AND NATURAL GAS							
Fees and Rental	300,402,693.36	38,684,476.58	98,522,813.58	48,032,061.20	57,017,924.27	52,240,050.51	534,900,019.50
Royalty	280,742,229.22	51,038,312.99	36,747,130.34	62,094,571.46	68,634,351.97	80,214,493.81	609,471,089.79
Crown Reserve Sales	609,418,763.72	30,498,593.68	52,694,139.01	91,908,326.63	121,050,115.77	106,225,023.84	1,011,994,922.65
SALT							
Fees and Rental	14,764.60	1,005.60	1,005.60	1,005.60	1,005.60	1,005.60	19,792.60
Royalty	112,679.14	13,753.64	12,742.65	15,892.92	18,163.83	18,656.77	191,888.55
QUARRYING							
Fees and Rental	4,299.37	140.34	101.00	31.00	46.00	31.00	4,648.71
Royalty	564,830.78	68,071.07	63,128.81	63,733.85	88,142.60	83,921.36	931,828.47
QUARTZ							
Fees and Royalty	35,336.24	4,335.00	4,155.00	4,790.00	4,165.00	50.00	52,831.24
PLACER							
Fees and Royalty	6,341.52	450.00	.....	.....	.....	.....	6,791.52
BITUMINOUS SANDS							
Fees, Rental and Royalty	3,332,485.27	654,684.76	644,906.83	825,801.15	654,638.37	663,547.33	6,768,073.71
OIL SANDS							
Fees and Rental	178,840.84	184,531.04	171,460.64	240,882.26	226,772.34	207,083.18	1,209,570.30
MINING MISCELLANEOUS							
Fees, Rental and Royalty	2,212,783.47	152,794.84	152,527.51	165,306.44	184,815.27	178,527.84	3,046,755.37
MINERAL TAXATION ACT							
Non-Producing Area Tax	3,844,226.91	530,170.30	550,217.99	579,559.49	541,940.58	572,858.15	6,618,973.42
Producing Area Tax	11,054,618.33	1,210,475.18	1,367,777.54	1,360,838.69	1,379,894.58	1,292,078.41	17,665,872.74
Certificata Fees	13,818.60	446.50	203.00	366.50	171.00	207.00	15,214.50
PIPE LINE ACT SUNDAY REVENUE							
.....	26,627.00	11,028.50	11,784.25	10,542.90	11,596.00	12,165.00	83,742.65
ADMINISTRATION SUNDAY REVENUE							
.....	809,619.17	85,640.96	73,784.48	83,772.89	75,243.34	55,549.13	1,183,609.97
TOTAL	\$1,227,656,987.82	\$123,299,617.83	\$151,431,747.16	\$205,626,382.55	\$250,149,768.21	\$242,067,030.81	\$2,200,231,534.38

